

4/9/2 (Item 2 from file: 15)

DIALOG(R) File 15:ABI/Inform(R)

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00662585 93-11806

Modeling the profitability of customer relationships: Development and impact of Barclays de Zoete Wedd's BEATRICE

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Journal of Management Information Systems: JMIS v9n2 PP: 53-76 Fall 1992

ISSN: 0742-1222 JRNL CODE: JMI

DOC TYPE: Journal article LANGUAGE: English LENGTH: 24 Pages

SPECIAL FEATURE: Charts References

WORD COUNT: 9531

ABSTRACT: Traditional management accounting data are limited in their ability to provide profitability information relevant to strategic management decisions. The problem is intensified in many business environments today where deregulation and new entrants often combine to leave unprepared firms with the risk of growing numbers of loss-making client relationships. Activity-based cost (ABC) accounting methods offer a solution, and several firms are developing information systems (IS) to gather and process cost and revenue data using these techniques. British securities house Barclays de Zoete Wedd's (BZW) response to poor accounting information and adverse conditions in its industry was to develop BEATRICE, an innovative IS, that combines ABC principles and a model of customer profitability for the securities industry that is based on a per-trade assignment of costs and revenues. The impact of customer profitability analysis on BZW's management processes and decision making is shown to be considerable.

TEXT: 1. INTRODUCTION

Consensus is emerging on the conditions under which information systems (IS) can provide strategic benefits 5, 13, 15!. New systems to provide profitability information and performance measurement data are increasingly visible in a number of industries. Studies by Lucas 21!, McLeod and Rogers 23!, Beath and Ives 2!, and Clemons and Row 6! have described information systems that improve organizational performance by providing valuable marketing, cost, and profitability information. Separate from firms' internal accounting systems, these systems are better suited to senior managers' decision needs than traditional accounting reports, and represent considerable enhancements to the firms' existing data collection and dissemination procedures. Furthermore, the new information supports improvements in management processes and decision making. With profitability measures by customer, by line of business, or by product line, managers can increase accountability for portions of the firm's total earnings, can better allocate the firm's resources, can support bids for new business, and can make well-justified decisions to expand or to exit certain businesses.

Management accounting is the set of procedures required for collecting and reporting cost and performance information for the management of a firm. Leading researchers in the management accounting field have identified distortions and misleading signals arising from traditional accounting systems. These flaws, described in section 2, preclude accurate performance measurement. As information processing costs fall, the development of specialized management information systems for profitability analysis becomes realistic. Robert Kaplan, in particular, calls for "a more effective set of integrated management information systems" and new methods that raise the "visibility of indirect costs by linking them to the activities that cause them" as steps toward correcting the problems 17!. Kaplan's propositions, in concert with more powerful office computers, have made practical the development of sophisticated customer profitability

systems. These systems are focused on senior managers' more specialized planning needs, and provide information systems managers an opportunity to develop important, strategic systems for management accounting. Notably, such performance measurement systems are being developed outside of firms' traditional accounting groups, and often lead to radically different values for product costs and relationship profitability than the traditional methods embedded in existing accounting systems. These customer profitability systems support more intelligent customer marketing and management decision making, as we will illustrate with a detailed case example from the securities industry.

1.1. PROFITABILITY INFORMATION

Recently, the securities industries in the United States and the United Kingdom have encountered business conditions sufficiently adverse that firms with superior information to support management decisions may find this is the difference between survival and failure. The industrywide losses posted recently indicate that some services are being provided at prices that do not cover their associated costs. The return on capital employed by member firms of the London Stock Exchange (LSE) was negative 2 percent between 1987 and 1990. For New York Stock Exchange (NYSE) member firms, return on capital was just 6 percent in the same period. Commenting on weakness of returns in the U.K. securities industry, the London Stock Exchange's Quarterly Review pointed out that firms' managers are often constrained because "it is difficult to identify the profitable from the unprofitable lines of business" (25!, p. 21). Companies in other industries have been visibly damaged by the lack of appropriate management information to support profitability analysis. Aggressive pricing policies by Delta Airlines in 1982 and 1983 led to just 8 percent of passengers paying full fare and the first annual losses for the airline. By matching all competitors' low fares on its 5,000 routes, Delta neglected the market conditions in which it could charge a premium according to the differential convenience and value of its service, and hence failed to cover its costs 2!. Firms that know the true costs of their products and services are in an advantageous position. Clemons and Row 6! reported the experience of PNC Financial in offering third-party check processing as part of their retail account management service for brokerage firms. By accurately knowing their costs, PNC was able to bid successfully and profitably for the processing of asset management accounts offered several major Wall Street securities firms. Without knowledge of the resources consumed by the firm's activities or the value of those activities to customers, managers have only intuition and casual analyses to identify where to invest, or which noncontributing lines of business activities to abandon.

1.2. RESEARCH APPROACH

Management accounting has received criticism for adhering to outdated techniques that fail to put relevant cost and revenue information into the hands of managers. Carefully constructed profitability models and well-designed information systems can address this problem. This paper explores one firm's experience, and finds that BEATRICE -- an innovative information system that utilizes recently developed principles of activity-based costing--has filled the gap that had opened between its rapidly changing business environments and traditional, but obsolete, accounting systems. BEATRICE was developed by a major British securities house, Barclays de Zoete Wedd (BZW). The initial prototype was developed in late 1988 by the authors working as client and consultant. BEATRICE comprises a detailed model of customer profitability, which is now implemented in an SQL database management system running on a minicomputer.

The system's impact is illustrative of the value of profitability information systems in general. However, the activity-based accounting approach used in BEATRICE is innovative and new within the management accounting literature, and as a result an adequately large field study sample of similar systems is not yet available. This reflects a general

problem in IS research, where rapid technological change creates "moving targets" that often frustrate traditional data collection and analysis 3, 20!. Yet an in-depth analysis of a single system does not preclude arriving at valid explanations and relevant conclusions. Tsoukas notes that "idiographic research explanations are valid for identifying the contingent conditions that lead to the success of particular systems" 27!. The case study method then enables us to detail the implementation steps, and to assess the benefits and impact of BEATRICE.

The paper is organized into seven sections. The second section is a description of the deficiencies in management accounting and information systems for performance measurement. Section 3 is a summary of the design objectives for BEATRICE. The fourth section explains how BEATRICE output is developed. Section 5 provides examples and details how BEATRICE output is used by management. The business value and performance impact are explored in section 6. Published data on profitability in the U.K. securities industry provides profitability benchmarks for BZW managers, and we describe several examples of the system being used to improve management decisions and the firm's use of resources. Section 7 is a conclusion.

2. HOW ACCOUNTING SYSTEMS DISTORT PERFORMANCE SIGNALS

2.1. ACCOUNTING DEFICIENCIES

As the shortcomings of traditional management accounting become evident, information systems research will be increasingly concerned with the design and development of systems to deliver crucial performance measurement information that is often unavailable in firm's reports. Researchers including Johnson and Kaplan 14!, Kaplan 18!, Cooper and Kaplan 10!, and Dixon, Nanni, and Vollmann 12! demonstrate that management accounting methods developed as long ago as sixty years at a time of labor-based manufacturing are no longer able to meet the information needs of management decision making. At that time, the diversity of firm's product and services was low, costs were largely accounted for by materials and direct labor, and information processing was expensive. Cost accounting methods were simple, and suited to the environment. Since that time, these authors point out, most new cost accounting systems have not been developed to improve management decision making, but to satisfy statutory financial reporting requirements, such as quarterly profit and loss statements (P&L) and inventory valuations. The resulting data generally do not give management a true picture of either the profitability of their products or their customer relationships. Because management decision needs were not considered in the design of these systems, relevant data are often not available in any form to support planning and strategic analysis.

Distortions appear in management accounting systems because they have traditionally allocated overhead and indirect costs according to easily acquired data on a product's required direct labor or machine hours, or its proportion of total output volume. This introduces a number of biases in the current environment, in which automation, reduced labor content, greater design complexity, and growth in distribution channels and customer service provision have led to increases in overheads and indirect costs. Despite the growing importance today of indirect cost activities--such as product design, service, marketing, distribution, information resources, and R&D--evidence indicates that few companies correctly identify these costs with their causal factors, or have adequate control systems for measuring costs in a way that is relevant to management. Table 1 summarizes the characteristics of the two environments. (Table 1 omitted) Murphy and Braund 24! report that 54 percent of the 389 company accountants surveyed use labor-based mechanisms to recover overheads. As a result, relevant information for profitability analysis and strategic control is obscured. When companies' cost accounting systems spread overhead costs on the basis of head counts, sales revenue, or materials used, managers often step up those apparently profitable products that, in fact, generate large indirect cost burdens in administration, purchasing, special production processing,

and customer service. Profit is often overstated on custom and specialty products that often require particular handling and place large burdens on support and service resources. Neglected are value-adding products or services that create few indirect costs. Poor signals from a management accounting system can easily lead to poor decisions and the underperformance of the firm.

2.2. INFORMATION SYSTEM SHORTCOMINGS

Unfortunately, most companies' management information systems (MIS) collect and disseminate those cost accounting data that researchers have found to be deficient. These MIS are centrally controlled systems most relevant to middle management facing operational control decisions. A survey by McLeod and Rogers²³ found that 60 percent of managers using marketing information systems in Fortune 1000 companies regarded their firms' internal accounting system as their primary source of data. Because the principal MIS outputs are accountability, control, and exceptions reports¹¹, the database designs to provide these often neglect the types of data necessary for addressing strategic management concerns that arise.

2.3 NO INTEGRATED MIS

Lacking profitability data and a supporting MIS, managers are constrained in their ability to understand the profit contribution of customer relationships and different lines of business. Decision support for strategic planning is not possible without relevant and accurate data. Difficulty measuring profitability is not unique to the securities industry. Airlines, for instance, may want to know the profit from operating a certain route and selling seats at a particular price taking into account the demand for feeder routes or onward connecting flights. The problem is understanding the complex buying patterns of customers for some products--especially those in which multiple services are provided as a bundled package. Effective management decision making requires meaningful profitability measures that include all relevant costs in the final realized profit of a firm's delivered goods. In many cases, deregulation and change in many industries has allowed new market entrants to "skim the cream" by chasing only the most attractive and profitable customer segments, leaving unprofitable customers and lines of business for the established firms to service. Threatened with the loss of high-margin business, cross-subsidization of loss-making activities by profitable ones is increasingly unviable. However, many firms lack an accounting system to help them realize this until the process is well underway. In addition, eroding customer loyalties and a growing transaction orientation--that is, unbundling and selecting the low-cost provider for needed services only--have placed even longstanding client relationships in jeopardy, and left unprepared firms with increasing proportions of loss-making accounts.

2.4. ACTIVITY-BASED ACCOUNTING

Activity-based costing (ABC) has been advanced as a solution to the problem of accounting information that is unsuitable or biased. The assumption in ABC is that virtually all of a firm's activities exist to support the production and distribution of goods and services. The basic activity-based model is:

(Model omitted)

The activity-based approach models the economics of producing a good or a service as a set of activities that consume resources. Indirect and support costs are assigned on the basis of "drivers": that is, the model recognizes that a cost may be incurred for each batch that is scheduled, or for each order handled, or for each custom product design undertaken. By allocating indirect expenses according to the burdens created by activities and products, ABC provides a predictive model of a firm's resource consumption. The consequences of management actions--for example, introducing a new product, or performing an activity less frequently--can be forecast and the

indicated changes in resource consumption can be measured against the changes in revenues.

Several criticisms of ABC have been widely discussed in the management accounting profession 12,16,18!. Some critics have commented that reducing the unprofitable activities that the firm undertakes may simply create excess capacity, and will not necessarily result in a change in the firm's costs. Proponents argue that a good ABC system will signal that a product or service is unprofitable, and distinguish costs that are volume-sensitive and controllable from those that are fixed. Users of ABC methods accept that there are lags in achieving bottom-line effects depending on how management responds to the signals, and whether the costs are controllable in the short run or not.

A second criticism is that activities alone do not determine all costs. In fact, many concomitant events influence costs, including time, business volumes, and earlier decisions that may have led to excess resources or inefficiencies. ABC advocates realize that the consumption of resources is not always caused by the production activities for a good or a service. For example, processing errors or machine breakdowns cause costs, but cannot be attributed to a particular product or to a customer. A related problem occurs when there is excess capacity to perform an activity. In that situation, the ABC literature recommends that the full cost of this capacity should not bear on a product's costs or the profitability of a customer relationship. If a machine has a total daily cost of \$1,000 and is used at half capacity to produce just 100 units per day, only its full capacity cost of \$5 per unit should be applied to its output. If the full cost is applied, a manager might wrongly feel justified in raising prices, which would reduce demand and create even more idle capacity, leading to still higher unit costs. A separate expense item is suggested that treats excess capacity as a cost of the quarter or the period, and not as a product or activity cost. A good ABC system will provide accurate signals; however, it is left to the manager to assess the causality--activities, inefficiencies, or otherwise--that lead to resource consumption. In cases where costs are not caused by activities, those costs should be treated separately and should not be allocated to a firm's products or services.

2.5. ABC IN SERVICE BUSINESSES

Activity-based costing was developed principally for production and manufacturing operations. Like other large securities firms, BZW is a complex service business comprising a well-equipped trading room, sales and investment advisors, a securities research group, and trade settlement and clearing operations. There are a number of different revenue sources and expense categories. Customers are fund managers and other investors looking to achieve attractive rates of return on their invested assets. Historically, financial services firms maintained account-based information systems, which made it difficult to look at the totality of a customer relationship. A bank, for instance, knew its trust-account holders, its checking-account holders, and its mortgage-account holders. However, they were known only as separate accounts, even when several were held by the same person. Bringing together the entire customer relationship was not possible with the previous technology, but in the past five to ten years has become a major goal for many banks, insurance companies, and brokerage houses.

A small modification to the activity-based model is needed for measuring customer profitability in a service industry:

(Model omitted)

The premise is that service activities cause costs, and that customer demands require activities to be undertaken. BZW exhibits the conditions most suited to an activity-based approach: (1) there is a diverse range of services, processes, and customers; (2) there are significant overheads

that are not easily assigned; and (3) demands on resources by BZW customers are not proportional to the volume of business they generate 24!.

3. CONCEPTUAL DESIGN AND OBJECTIVES

There were several objectives for BEATRICE. First, BZW needed to respond to weakening business conditions in its industry. Second, the firm recognized there was overcapacity in its operations, but was handicapped in its planning by its inability to distinguish between those costs that contributed commensurate revenue, and those that were ineffective in producing adequate revenue. This meant that any cutbacks to improve profitability were haphazard and potentially threatening to viable lines of business. Third, the firm wanted an integrated MIS to provide relevant output for senior managers. The BEATRICE design addresses these objectives.

3.1. RESPONSE TO INDUSTRY CONDITIONS

In the early and mid-1980s, the securities industry was characterized by rapid growth and substantial margins. Economic expansion and the rise in investible assets led to buoyant conditions for securities brokers and dealers on both sides of the Atlantic. During this time aggregate revenues were sufficient to cover the cost for most lines of business. In recent years, deregulation and new entrants have led to narrower margins and more difficult conditions, especially in the U.K. equities market, which underwent deregulation in 1986 and experienced a dramatic influx of new competitors.

The London market's Big Bang deregulation and the drop in business volumes after the October 1987 stockmarket plunge created a fiercely competitive environment in the U.K. securities industry. The Big Bang occurred on October 27, 1986: it abolished the fixed commission rate schedule, removed a 30 percent limit on corporate ownership of member firms, and opened Exchange membership to overseas firms 9!. SEAQ, a screen-based market mechanism, was introduced to support the new Exchange operations. The halt to the steady increase in securities trading volumes came with the worldwide price drop in October 1987. Firms have since reported record losses, and revenues and margins have fallen. In London, member firms of the London Stock Exchange lost L350 million in 1990, and about 10,000 net job losses are estimated to have occurred since 1987. Capital employed by member firms fell from its 1989 peak of L3.5 billion to L3.1 billion in late 1990 (25!, p. 12). An initial rush to set up U.K. equities operations led to a jump from thirteen market making firms to a peak of thirty-six in 1987. There has since been a decline to twenty-four in mid-1991.

After 1987, the U.K. securities industry faced the unfamiliar challenge of scaling back and managing resources more tightly. Without data necessary to measure performance and the profitability of customer relationships, BZW managers chose to develop BEATRICE to compare revenues with their associated service costs. During the years of growth, most IT investments in the securities industry went toward "front-office" systems to supply brokers and dealers with trading information and analytical capabilities. BEATRICE represents a critical new phase of IT investment in leaner times for the securities business: systems to monitor risks, and to measure and control the profitability of customer relationships and business activities.

3.2. SUPPORT INTELLIGENT PLANNING

Howard Coates, Chief Executive of the equities division at the time, saw that a more tightly controlled operation was needed to deal with profit pressures and the evident excess capacity caused by the rush of new entrants into the market. Yet any management steps taken to control expenses and focus on the most attractive segments would rely on judgment, rather than hard data on the firm's profit sources. In 1988, BZW lacked systematic awareness of which costs generated which revenues, and hence did

not know its profitability across customers or across its lines of business. The firm's existing management accounting system detailed major expense items, but maintained nearly half of all costs as unallocated overhead expenses. Further, it provided no integrated information on revenues, which came from a number of sources that were tracked in separate systems. At a time of contraction in its industry, BZW management saw the need to gauge its profits and success by client.

A major design objective for BEATRICE was to support strategic planning. BZW wanted to better manage customer relationships and to identify those activities that are non-value-adding to be able to reduce excess capacity intelligently. In response to industry conditions, some firms are cutting back in all operations, laying off staff, or closing down altogether. BZW implemented BEATRICE to clarify and make explicit the profitability of their multifaceted customer relationships. Aided by BEATRICE information, BZW can make plans to strengthening the profitability of its promising customer relationships, and to emphasize its value-adding activities, while scaling back on those activities that do not cover their costs. The firm's strategic planning can "cut back without cutting muscle."

3.3. INTEGRATE MIS WITH IMPROVED ACCOUNTING TECHNIQUES

Management accounting specifies the procedures and systems for providing information for management decisions. Anthony noted that "designing a management control system is a complicated, time-consuming process" and pointed out the importance of having "the management control function supported by an information system." (1!, p. 17). Historically, securities firm's revenues and costs have been tracked in separate systems. A typical MIS report might appear as in Table 2. (Table 2 omitted)

Because the necessary data are not captured and available in the typical MIS, reports cannot communicate a comparison of costs to various revenue streams. The accounting reports it can produce are too aggregated to aid managers in reducing costs or improving productivity. For instance, the cost going into generating a unit of commission is impossible to estimate with the data available in a typical securities firm's MIS, although it can vary substantially by customer.

3.4. DEVELOP ROBUST REVENUE AND COST MODELS

The securities industry exhibits the four characteristics of a service business: (1) heterogeneous outputs, (2) intangible goods, (3) consumption and production are inseparable, and (4) its product is not storable. In a service business, "delivery" of service to the customer is generally part of an "event" that causes the provider to undertake some resource-consuming activities. Amorphous events, rather than identifiable "products," make allocation of a securities firm's costs difficult. Thus, performance measurement in service businesses needs to identify the cost of activities that support service "events." Competing in an increasingly global business with a diverse and changing customer base means that securities firms must be quick to adapt their service offerings to new needs, new financial instruments, and new investment strategies. Yet in Britain, BZW appears to be among the first to recognize that meeting these needs must be on the basis of an economic understanding of the resources used, and the revenues derived from its services to customers. Revenues are particularly hard to attribute since BZW may trade with a customer, and not know until some time after whether they made a profit.

Reflecting on BEATRICE, Howard Coates noted that "at the outset we didn't have a clear idea of the ways in which revenues were derived and felt that acquiring this information would be enormously valuable in managing the business." The first step for BZW was to develop a model of how customer demand for its services contribute revenues and generate costs.

3.4.1 REVENUE SOURCES

Revenues in a securities firm come from customer commissions and the firm's trading profits. Customers generally pay a commission when a securities house executes a trade on their behalf. In 1991, the standard institutional commission rate in the London equities market was 0.20 percent, meaning that a £50,000 trade would generate a £100 commission for the securities firm. In addition, securities houses act as market makers, offering to trade with, rather than just trading for, their customers. This leads to two ways of earning trading revenue. The first comes from the market maker quoting a bid price at which he is willing to buy and quoting a somewhat higher ask price at which he will sell stock. The market maker derives his turn, or "bid-ask" trading revenue from buying at the lower bid price and selling soon after at the higher ask price. The second source is more risky speculation or positioning revenues (or losses) that result from a trader taking a long or short position to gain from changes in the price over a greater period of time. Trading income in either form varies up or downwards according to the price movements after a trade, but because of the uncertainty about future prices at the time of a trade, the full revenues from a customer transaction are not known until the trader's resulting position is unwound at a later stage ⁴¹. To measure trading gains accurately, BEATRICE calculates the profit from a trade sometime after the transaction in light of subsequent trades and price changes.

3.4.2. COSTS

Expenses are difficult to identify with particular activities and particular customers in the securities industry. Firms are principally involved in securities research, advice, settlement, execution, and the commitment of capital to facilitate customer trades. The unallocated overheads and indirect costs to provide these services often account for over half of all costs in many firms. Securities firms traditionally have provided their customers with services as a bundle, and have charged overall on the (easily measured) volume of trading channeled to the firm, e.g., applying a 0.20 percent commission to £5,000,000 in trading volume generates £10,000 revenue for BZW. The problem arises because there is not a standard set of services that is provided to customers; they draw resources from the firm in diverse ways. Consequently, costs are not easily assigned to the customers who caused them, and customers pay according to a volume measure that can be highly inconsistent with their demands on resources. To measure resource demands, BEATRICE traces costs to customers based on the activities undertaken on their behalf, and the transactions they generate. This is a considerable improvement on a volume-based measure to estimate costs, and better reflects the economics of serving investors. The revenue and cost equations form the basis of an aggregate profit model that reflects the performance of the firm's business units and the attractiveness of its customer relationships.

4. IMPLEMENTING THE PROFITABILITY MODEL

BZW provides securities research on over 600 companies, and is a market maker in the shares of nearly 2,000 U.K. companies. The firm serves 400 sizable clients in U.K. equities from its network of offices worldwide. BEATRICE assigns a profit to each of the firm's 6,000 transactions a day according to algorithms that are discussed in this section. BEATRICE is based on a relational database design. In the main relation, each record represents a trade, and fields include the customer name, the security traded, price, time, and the various revenues and service costs subsequently allocated to the trade. Hence, 6,000 records are added each day. The database runs on a Stratus XA2000 with SQL 2000 as the data manipulation language.

After a period of system development, BZW is beginning to realize benefits from BEATRICE. We next describe the development of BZW's customer profitability model, and discuss its implementation in an MIS. After, we document some of its early applications and results, and assess the

potential for BEATRICE to improve the firm's performance.

4.1. THE NEED FOR PROFITABILITY ANALYSIS

As in many securities firms, BZW managers have difficulty identifying the sources of its profits. A director at BZW likened securities firms to a supermarket in which "customers roam about filling their baskets with the goods they desire (i.e., research, advice, trading services etc.), but pay at the check-out not on the basis of the costs of the items, but on the basis of an unrelated quantity such as the weight of basket (i.e., the volume of their trading)." Hence, a customer purchasing a pound of filet mignon is often charged the same as the customer buying a 16 oz. can of baked beans. BEATRICE remedies this disparity by applying the principles of activity-based costing. The unit level of activity in a securities firm is a trade, and all revenues and costs eventually apply to individual trades.

4.2. COST ALLOCATION

Cost allocation in BEATRICE operates in two stages. The first stage determines the cost of activities. The principal cost elements are shown in Table 3. (Table 3 omitted)

All costs within the equities division are assigned to one of these categories, and indirect costs and overheads including premises, administration, and computer equipment are associated with individual business functions. The next stage allocates these activity costs to customers who require activities to be undertaken. The basis for allocating costs is the activity that is felt to have the strongest causal link with the expense. Two types of activity costs were identified. Unit-volume related costs are those that are a function of the number of transactions. Process-sustaining costs are those that are insensitive to volume and result from the consumption of service and support-level resources. The activities and the basis for their allocation are reported in Table 4. (Table 4 omitted)

In the system's processing, nearly all of the costs of running the U.K. equities business are allocated to individual trades according to the staff time they require and the fees and costs to which they give rise. Each category of service has its costs assigned to individual transactions in the most explicit and realistic way. As Alastair Yexley, Assistant Director at BZW, note, "It took a long time to determine where costs arose and where they should be allocated, and this was the most complex element of specifying the system." For example, settlement costs may be allocated at one of two levels. First, BZW settling with a Stock Exchange member firm requires only intramarket settlement, which uses electronic book entry and is relatively inexpensive. On the other hand, client settlement with nonmember firms requires settling twice, once within the Exchange market and once with the client. Accordingly, the higher costs of client settlement are borne only by client trades, and the lower costs of market settlement are borne by trades with member firms.

Trader/Execution activities provide another illustration of the cost allocation process. BZW employs four market makers and trading staff to cover oil stocks. Each trade in oil stocks requires roughly equivalent time and effort on the market makers' part, and is allocated an equal share of cost of oil market makers. If market makers cut their costs--by shedding staff or using fewer terminals or data services--each trade will have a smaller cost allocation, and thus will be more likely to be profitable.

4.3. REVENUE ALLOCATION

Measuring profitability also requires data on revenues. BEATRICE tabulates two different types of revenues for each trade: commission and trading revenue. Commissions are paid as a percentage of customer trade size for BZW's research, advice, and client settlement services. Trading revenue is the income BZW expects to receive for committing its capital to facilitate

clients' desire to trade. In general, market makers seek to have a zero position, that is, to close out long or short positions, which represent risk, and require the commitment of the firm's capital. BEATRICE allocates trading revenue to individual trades according to an algorithm that splits trading gains into two categories depending on whether a trade's contribution can be allocated to a customer or to a BZW trader. Trading profits are usually client facilitation trading profits, which are attributed to client trades. These profits are the result of short holding period trades for BZW: for instance, buying from a customer at 10:00 A.M. and selling to another (at a higher price to be profitable) at 10:05 A.M. Longer holding periods for a BZW market maker often indicate an attempt to realize speculative position revenues, which are not assigned to clients. Consider the example in Table 5 which a BZW market maker transacts three times in a half-hour period and closes out his or her position. (Table 5 omitted)

Assuming the market maker's position in these shares just before 10:00 A.M. was zero, the aggregate profit of these trades is simply sales revenue less buying cost, or $L201,000 - L200,000 = L1,000$. Yet a difficulty arises in determining how this profit should be allocated across the three transactions. The second trade and part of the first trade appear to be profitable, but the third trade is not profitable. One possible approach is to let the first and second trade split evenly the $L4,000$ profit realized at the time of the second trade, but have the first and the third trade split the $L3,000$ loss realized at the time of the third trade.

Many other sensible ways of allocating the $L4,000$ gain and the $L3,000$ loss exist, but as a BZW director observed, "the key issue is to ensure that the method chosen is capable of consistent application and apportionments the income from successful trading to the trades most responsible for the success." If the profitability patterns for the three customers were persistent, managers at BZW might conclude that customer C was better informed about short-term price movements, and potentially a more risky trading counterparty, BZW could then adjust its trading tactics to trade in smaller quantities or to be less willing to negotiate tighter prices with customer C.

4.4. TRADE PROFITABILITY ALGORITHM

The full algorithm for assessing the profitability of a trade is applied to all transactions. Each trade, however, will have a different set of background conditions or parameters that influence how the profit model is applied. The profit of a particular trade is a function of the inventory held at the time of the trade, the cost of acquiring that inventory, the elapsed time between trades, the stock's level of trading activity, and the trade price paid or received. If the third trade did not occur until 4:00 P.M., for instance, the algorithm might dictate its associated loss not be allocated a customer at all if it appeared that the BZW trader made a conscious decision to maintain the position of 60,000 shares long rather than trade out of it. In this case, the $L3,000$ loss would be deducted from the market maker's position revenues. This simple example suggests the complexity in assigning trading profits and losses to clients' trades. Other complicating factors include accounting for stock splits, dividends, and transactions in the options and futures markets. Options and futures are traded in a different market, and different trading strategies are utilized for different reasons. Sometimes trades in these derivatives markets are used to hedge positions taken in transactions with customers, and sometimes they are used to speculate on anticipated price movements.

As a result of the computations in BEATRICE, each transaction will have a number of cost elements as well as commission and trading revenues or losses associated with it. A fully costed profit is calculated for each trade. These profit data can then be used to work out the contribution of any subset of trades: for instance, trades by particular clients, those within a particular size range, or all trades handled by an individual

salesman. In aggregate, the model's revenues and costs reconcile to the figures in the mainstream financial accounts, but with the benefit that key relationship profitability information is made available in electronic form with BEATRICE.

5. HOW THE MODEL IS USED

BEATRICE is intended to inform BZW's decision makers with relevant data on relationship profitability. With the system in full use in 1990, Howard Coates reflected, "We are now in a position to assess accurately the strengths and weakness of our operation and to evaluate our commitments to various customers and customer segments--in some cases this means strengthening our ties and increasing our exposure, and in other cases, cutting back on ill-placed efforts." Although BEATRICE uses objective inputs and is based on a formal model of cost and revenue allocation, the interpretation of the model's outputs nevertheless requires judgment.

5.1. ROLE OF JUDGMENT

Management accounting information, including that produced by BEATRICE, is a byproduct of the firm's records of customer transactions and internal production activities. As Jordan demonstrates, however, these data, even in an idealized form, are not adequate for solving the firm's microeconomic production problem 16!. To set efficient production levels, a firm's offering a number of goods, each of which is produced with a number of different activities, must determine the marginal net revenue of its products and the shadow prices of its activities. These are not available from the records of transactions and production activities. Thus, management accounting data, including that from an ABC system, does not map directly into management production decisions, but is subject to interpretation. Raiffa 26! refers to the inevitable "judgment gap" that exists between any formal model used by a decision maker and the real world. The objective of the systems developer is to reduce the judgment gap and bring the model closer to the demands of the real-world problem. We next describe how BZW senior managers interpret and use BEATRICE output.

5.2. BEATRICE ANALYSES

The profitability calculations are applied in a batch program that is run quarterly on each of the 400,000 transactions arising in a quarterly period. BEATRICE is not a real-time system since a fairly large number of trades from one customer is needed to reach a statistically significant conclusion about the activities involved in a particular client relationship. Based on the observed statistical variance in the profit of individual transactions, a minimum of fifty trades in a quarter is sufficient for arriving at reliable conclusions about individual clients. BZW's larger institutional clients transact with the firm about 800 times in a quarter.

Once the model is run for a quarter, as many as 100 reports are generated detailing the performance of many different types of cross-sectional groupings. Information is calculated and can be presented in the format and level of detail appropriate for a range of management decisions. An ABC system does not make decisions. Rather, it focuses attention on unprofitable relationships and lines of business, and allows managers to identify the causal factors and to consider corrective responses. Decisions result from knowledge of market opportunities, and the costs of pursuing an opportunity or a customer. For example, offering an existing client a new instrument that would result in less trading risk to BZW could be compared to the additional cost of monitoring and managing a position in the security.

5.3. VALUE IN DECISION MAKING

Since BEATRICE supports short-term tactical and strategic planning, it separates fixed and variable costs in the output. In the short run,

management decisions will not affect fixed costs. Capital expenditures--for instance, dealing room equipment and computer hardware--are sunk costs that are not related to volume and are only controllable in the long run. This suggests that some activities may be loss-making relative to total allocated costs, but, as Alastair Yexley pointed out, "may still be profitable when compared to the smaller amount which would be saved by shutting down that line of business or not servicing an individual client." For example, dropping unprofitable customers will not lower the current period costs of equipment, facilities, and administration. However, it is possible to identify relationships that will only cover the current level of costs with additional revenue. In the case of an unprofitable customer relationship, BZW has several alternatives. The firm can try to attract additional business volumes from the client, or commissions and fees can be raised, or BZW can try to limit the resources it expends on the relationship. BZW managers recognize that there are different interpretations and uses of BEATRICE information depending on the particular planning decision at hand. Expending fewer resources will be likely to have a lagged effect on performance because the newly available capacity will need to be redeployed in more advantageous areas, or the capacity will be cut back over a period of time. Alternatively, BZW can seek to make an activity more efficient with changes in its processes, or by introducing new technology. A result may be a return to profitability for some relationships. The three most important purposes that BEATRICE is used for are depicted in Table 6. (Table 6 omitted)

Tactical decisions require incremental costing; these are only those costs that can be immediately reduced by a fall in transactions volumes, or curtailing an activity. Such volume-sensitive costs are often a small proportion of the full costs. For instance, the cost of clearance and settlement for a customer that is not a member firm of the London Stock Exchange is about L40 fully costed. However, in the short term, L32 of the L40 expense is fixed, leaving L8 as the settlement cost that management actions could potentially save in the short term. A problem-solving situation considers a particular decision that the firm faces. For instance, the firm may study whether to provide an unprofitable customer with a terminal for using TRADE, BZW's on-line order execution system for their trades 8!. The relevant costs would be a one-time cost for the terminal and training, and the reduced costs from less time spent by BZW traders on the phone with that client. Other costs, such as the hardware and TRADE software maintenance, would not be affected by the marginal user. Strategic planning involves identifying where the firm has a comparative advantage, and looking for ways to offer services and to attract customer segments with the most leverage for increasing profits. For BZW, the customer segments and lines of business in which the firm covers its fully allocated costs are those in which the firm is willing to invest to attract growth and to defend the segment in the future.

5.4. CUSTOMER SEGMENTATION

Expectations for growth and future profitability of certain client relationships are also taken into account when evaluating current, possibly inadequate, profitability. A loss-making client relationship today may become profitable in the future, and accounts such as these are monitored for improvement. BEATRICE information and prospecting reports from sales managers are used to classify clients into several categories. The classification is based on a client's current profitability and potential for increased revenue. Figure 1 depicts four customer categories. (Figure 1 omitted)

In the first category are clients with adequate profit levels, who are likely to respond with additional business volumes to upgraded services from BZW. These clients are actively targeted, and would have additional contacts from BZW's senior research analysts and portfolio strategists. The second category is profitable clients who are unlikely to respond to additional services with an increase in volume and revenue. Because the client is not a loss-making account, the level and mix of services are

maintained. Category 3 customers may include those whose revenues do not cover all costs, but cover marginal costs and contribute to overheads at BZW. There is a good possibility that the client's business volumes directed to BZW could improve. In these cases, the financial implications of the relationship are discussed with the client in hopes of converting the relationship to profitability. Recognizing their mutual reliance, some of these clients have shown a willingness to increase the commission rate paid to BZW, or to reduce their demand for services that they value less to enable BZW to reduce its costs and apply the resources elsewhere. In the fourth category are clients whose associated revenues may not cover the marginal cost of the services provided in the current relationship, and whose relationship is not expected to expand.

BZW has several distribution channels for its services, and can assign staff of different seniority to a client. As a result, the firm has additional alternatives for converting relationships to profitability. It can use the most appropriate staff and delivery mechanism based on the attractiveness and profit contribution of the relationship. For instance, encouraging a customer to use electronic order entry via BZW's TRADE system for some trades is one alternative for reducing the costs of the relationship.

5.5. BEATRICE ANALYSIS: AN EXAMPLE

Table 7 is an example of BEATRICE's output for a relatively small BZW client. (Table 7 omitted) In the example, the client relationship was slipping into unprofitability in the first half. Part of this appeared to be due to reduced volume, which may have been due to a decline in sales effort. An additional element was a deterioration in gross trading margin. These conditions were turned around in the third quarter as more sales and research effort was applied, leading to greater profitability.

It is unusual for decisions to be made on data from a single quarter. The analysis of trends is therefore important to avoid making judgments based on statistical anomalies. In the sample relationship shown, two unprofitable quarters placed the client account in the third, loss-making, category. BZW increased the service provided and the client directed an increased volume of business to BZW. This led to profits for the relationship in the subsequent quarters, and for the year as a whole.

Some of the factors taken into consideration in interpreting the output are external to BZW. For instance, customers' activity levels are influenced by the overall level of activity in the market and by the customer service charges set by the London Stock Exchange. Similarly, the profitability of BZW's trading is in part a function of the spread between the bid price and the ask price in the market as a whole, which will affect all clients, and over which no one firm has control. These exogenous factors are published by the London Stock Exchange, or are directly measured by BZW, and can be taken into account. In addition, benchmarking comparisons can be made with the aggregate performance of firms in the industry. For instance, the net margin (i.e., $\text{revenues} - \text{expenses} / \text{trading volume}$) in U.K. equities was -0.018 percent for member firms of the LSE in 1990 (it was 0.031 percent in 1989, and 0.023 percent in 1991).⁽¹⁾ For the sample customer, the net margin for the relationship was 0.018 percent, indicating relatively good performance for 1990, and an attractive relationship for BZW.

5.6. BEYOND RELATIONSHIP PROFITABILITY

By looking at information on the profitability of large subsets of total trades, BEATRICE enables particular types of clients or lines of business to be analyzed. One decision in particular was whether to undertake a costly hardware upgrade to allow additional users to access the TRADE system. Prior to BEATRICE, it would have been guesswork to determine whether the client activity through TRADE generated profits for BZW. By analyzing the costs and revenues of the subset of trades made with the

TRADE system, BEATRICE showed that this line of business was sufficiently profitable to justify the investment. An analysis of the client activity through TRADE in the quarter subsequent to the upgrade showed that, with the extra throughput to TRADE, the upgrade investment was fully recouped in three months.

6. RESULTS AND PERFORMANCE IMPACT

A profitability information system does not clearly exhibit one of the identified sources of strategic advantage--switching costs 22!, preemption 5!, or unique assets 7!. However, such systems can provide benefits and improve decision making and strategic planning. BEATRICE greatly improves decision information available to BZW managers, and provides accurate measures of the economics of customer relationships. BEATRICE supports closer management of the firm's resources, and enables the firm to position itself correctly for profitable operations in a highly competitive industry. There are several ways in which the system has enhanced competitiveness and profitability.

6.1. ENHANCED INFORMATION FOR MANAGEMENT

Prior to the development of BEATRICE, management information in BZW was limited. Total profit and loss could only be calculated on an aggregated basis for trading activities, and by market maker in individual stocks. Commissions could only be tabulated for each client. No information was available on the services each client was receiving, and no analysis or breakdown of profits by client was possible. BZW's management did not know how effectively its expenditures and service efforts were contributing to the bottom line. It had a team of professionals generating a revenue stream, but no way to track the costs incurred in servicing individual clients. Without an understanding of the profitability sources, management was admittedly "flying blind."

BEATRICE has remedied these shortfalls. It enables management to determine which customers and customer segments are profitable and for what reasons. For example, a client may pay below-average commissions but engage in a high volume of low-risk trades that create profits for BZW dealers. The relationship is profitable, but without BEATRICE the client could have appeared to be loss-making. Initially the system's output was "greeted with some skepticism," according to a BZW director. Several of the profit allocation mechanisms needed to be adapted to handle several special situations that arose in the markets. With the treatment of these situations, and the added experience using BEATRICE output, the system has become well accepted.

As the diversity of BZW's client base increases due to globalization and new investment management styles, the firm will need to continue to develop appropriate metrics for evaluating their profit performance across clients and market segments. BZW will also continue to develop its ability to interpret the BEATRICE data, and to perfect its responses to unprofitable relationships. The firm's new intelligence about trade-by-trade performance can support the discovery and evaluation of new trading and position-taking tactics. These abilities should improve over time.

6.2. BENCHMARKING AND BEATRICE BUSINESS VALUE

Published data on commissions, trading revenue, expenses, and turnover in the U.K. equities markets provide benchmarks for BZW managers to compare the firm's performance and profitability of relationships. Since BEATRICE is based on activity-based accounting principles, the outputs have forceful economic implications for management decision making. When revenues are inadequate to cover the cost of maintaining a product or a customer relationship, some management action is appropriate. The alternatives include raising price, increasing volume, and abandoning the activities and redeploying the resources elsewhere, or cutting capacity outright through

layoffs and equipment disposals.

BEATRICE enables BZW to compare the profitability performance of each customer relationship with industry benchmarks. If the management actions taken reduce the number of underperforming relationships, the business value of the system may eventually be reflected in superior financial performance relative to consolidated industry figures published by the London Stock Exchange on a quarterly basis. Benchmarking and the ability to manage profitability at the level of individual relationships could result in improved performance of the firm overall, and a clear business value impact 19!. However, such an analysis requires a larger set of data than is currently available, and is outside the scope of this paper.

7. CONCLUSION

Traditional management accounting data are limited in their ability to provide profitability information relevant to strategic management decisions. Without such information, senior managers cannot systematically identify sources of profits accurately and systematically, and thus cannot deploy resources to the firm's best advantage. The problem is intensified in many business environments today where deregulation and new entrants often combine to leave unprepared firms with the risk of growing numbers of loss-making client relationships. Activity-based accounting methods offer a solution, and several firms are developing information systems to gather and process cost and revenue data using these techniques. The evidence is accumulating that such systems provide information that is more relevant and accurate than what was previously available, and that improves the quality of management decision making.

BZW's response to poor accounting information and adverse conditions in its industry was to develop BEATRICE, an innovative MIS, that combines ABC principles and a model of customer profitability for the securities industry that is based on a per-trade assignment of costs and revenues. The impact of customer profitability analysis on BZW's management processes and decision making was shown to be considerable. Unless competitor firms carry out similar types of analysis, BEATRICE is likely to provide a competitive advantage.

While a single-site case study limits the ability to generalize, there is support for the result that a well-executed information system based on ABC principles can improve management decision making and organizational performance. This finding is particularly applicable in securities firms, which have encountered recent deregulation and rising competition, and until recently lacked effective management accounting systems. Extensions of this research will examine how to use the data from customer profitability systems intelligently in marketing and distribution decisions, what other industries provide challenges in the design and use of activity-based profitability systems, and, finally, what problems and benefits arise when performance measurement systems are integrated with firms' other information technologies, including processing and control systems, inventory systems, supplier-vendor networks, and customer order entry systems.

NOTE

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COMPANY NAMES:

Barclays deZoeete Wedd

GEOGRAPHIC NAMES: UK

DESCRIPTORS: Information systems; Management accounting; Activity based costing; Securities industry

CLASSIFICATION CODES: 9175 (CN=Western Europe); 5240 (CN=Software & systems); 4120 (CN=Accounting policies & procedures); 8130 (CN=Investment services)

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4/9/1 (Item 1 from file: 15)
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00813287 94-62679

Determinants of success in service industries: A PIMS-based empirical investigation

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Journal of Services Marketing v7n4 PP: 19-40 1993 ISSN: 0887-6045

JRNL CODE: JSV

DOC TYPE: Journal article LANGUAGE: English LENGTH: 22 Pages

SPECIAL FEATURE: Charts Appendix References

WORD COUNT: 10830

ABSTRACT: The changing pace of service industries demands that greater attention be given to strategic issues. Intense competition in a growing number of service industries highlights the need for firms to focus attention on how to attain a sustainable competitive advantage. Against this backdrop is presented an exploratory study that attempts to determine the key strategic variables that lead to superior financial as well as competitive performance. Furthermore, the effects of strategic variables on the service provider's risk levels are investigated. The empirical results using the profit impact of market strategy (PIMS) database suggest that integrating forward, having a relatively larger market share, sharing customers with other business units in the firm, and being a market pioneer positively influences financial position. Customizing the service, integrating forward, sharing customers with other business units in the firm, having a strong service image, and being in a market with a small number of competitors positively influences relative market share. Finally, having a strong service image, improving service quality, and having a higher relative price reduces the risk to service firms.

TEXT: INTRODUCTION

A great deal of attention has been devoted recently to the rapidly changing face of the services sector. A number of service industries are now characterized by low growth, intense competition, rapid technological changes and spiralling customer expectations (Allen, 1989; Dudick, 1988; Quinn and Gagnon, 1986; Segal-Horn, 1989; Wind and Robertson, 1983). Also, the services sector is becoming more concentrated due to the pursuit of economies of scale by larger firms and high consumer switching costs resulting from risk and purchase ambiguity in service exchanges (Atterman and Guseman, 1988). The effects of these trends have been counterbalanced to some degree by deregulation in major service industries such as the airlines and financial services. Thus, put in terms of an industrial life-cycle, most services are now in the mature stage, analogous to the position of manufacturing firms in the 1960s and 1970s. In the same way that these manufacturing firms began to engage in strategic thinking in response to a new situation, service firms today must also adopt a strategic posture.

An extensive body of literature in services marketing has focussed on the differences between services and goods. For the most part, this stream of research has focussed on the implications of differences between goods and services from the standpoint of marketing operations management. However, there seems to be very little research on the strategic aspects of marketing in the services literature (Fisk et al., 1993; Swartz et al., 1992). Hence, the purpose of this study is to provide initial insights into the key determinants of superior financial and competitive performance[1] in service industries. The primary objectives of this article are:

- (1) Develop research propositions delineating the relationship between key strategic and competitive factors and their effect on service firm

performance.

(2) Empirically test these propositions and propose directions for managerial practice and future research in the area of strategic marketing of service firms. To accomplish these objectives, this article is organized as follows. First, we discuss the strategic implications of key organizational, marketing and competitive variables on performance of the service firm and develop testable research propositions. Second, we empirically test these propositions. Third, we discuss the findings. Finally, we conclude with discussion of the results, their implications and directions for research in strategic services marketing.

THEORETICAL BACKGROUND AND RESEARCH HYPOTHESES

The area of strategic services marketing is in its infancy. Although there have been some interesting studies in this domain, it has yet to draw extensively from the more established marketing strategy literature. For example, while there has been work on key strategic issues like store-choice location (Finn, 1987; Ghosh and Craig, 1983); market segmentation; consumer segmentation and competitive groups; market potential and competitive behavior in selected retail firms such as groceries, restaurants and gasoline retailing, there have been no systematic integrated studies of these strategic variables (Bateson, 1985; Deshpande and Krishnan, 1977; Good, 1984; Ingene, 1983, 1984; Kopp et al., 1989). Our study attempts to provide initial insights into this sparsely researched area of Strategic Services Marketing by specifically studying the effects of the following variables.:

ORGANIZATIONAL

- (1) Degree of vertical integration
- (2) Service quality
- (3) Image
- (4) Degree of shared customers

MARKETING

- (1) Advertising level
- (2) Promotional levels
- (3) Sales force levels
- (4) Price
- (5) Product line breadth
- (6) Product customization.

COMPETITION

- (1) Order of entry
- (2) Market share
- (3) Number of competitors.

An important aspect of this study is that it used three measures of performance. Since each of these measures, because of their nature and theoretical perspectives, can be affected differently by strategic context, and good performance on one dimension of performance may mean sacrificing performance on another (Donaldson, 1984; Walker and Ruekert; 1987), the use

of these three dependent variables provided for a richer understanding of the effects of marketing decision on service firm performance.

ORGANIZATIONAL VARIABLES

The significant effects that organizational factors have on firm performances have been well documented in the marketing literature. While there are many important organizational variables worthy of investigation, we have chosen key structural, financial, and atmospheric organizational variables. In particular the following have received a great deal of attention in the services industry in recent years, namely vertical integration, shared resources, service quality and image of the service firm relative to competition.

Degree of vertical integration. One of the factors that has been found to be significantly related to organizational performance is its level of vertical integration. Service firms are increasingly facing new competitors who have integrated forward or from more complex service firms who have integrated backwards. Retailers such as Sears integrated backward and forward into insurance and finance, while airlines have invaded other travel services and retailing. The benefits of vertical integration are many. For instance, forward integration increases firm's control over sales, distribution, promotion, and after-sales service (Chandler, 1977; Lovelock, 1989; Scherer, 1980). Backward integration reduces the firm's dependence on suppliers and reduces the cost of material and transaction costs of input markets (Amihud and Lev, 1981; Robinson, 1988; Williamson, 1975). For example, Red Lobster restaurants' control of sources of seafood from Alaska and parts of the former Soviet Union reflects its desire to maintain consistency and quality of suppliers (Aaker, 1989). The advantages of vertical integration include increase in value added (Aaker and Jacobson, 1987) and opportunities for product differentiation while reducing the leverage of consumers and suppliers (Woo, 1987). On the other hand, the downside of vertical integration is that investments in forward and backward integration can increase the level of fixed costs thereby reducing strategic flexibility (Harrigan, 1985; Woo, 1987). Further, it can reduce the already scarce capital and labor resources (Lovelock, 1989) and increase the need for coordination with the firm (Buzzell, 1983). These factors are not only likely to increase costs, but may also expose firms to greater profit variation (Woo, 1987). Taco Bell, for example, has outsourced much of the preparation work which has been done in restaurants (such as, shredding lettuce and chopping tomatoes), thereby freeing employees and supervisors to concentrate on customers and their needs (Schlesinger and Heskett, 1991).

While we expect vertical integration to be positively related to market share, its relationship with financial performance will depend on the net effect of the benefits and costs of vertical integration. However, Buzzell and Gale (1987) found the potential and actual benefits of backward and forward integration varies across different contexts. So, while we expect the degree of vertical integration to be positively related to market performance and negatively related to risk, we also examine their effects on performance separately. The above discussion leads us to hypothesize that:

H1a. The financial performance of a service firm will be significantly related to the firm's degree of (1) forward and (2) backward integration.

H1b. The market performance of a service firm will be related positively to the firm's degree of (1) forward and (2) backward integration.

H1c. The risk level of a service firm will be related negatively to its degree of (1) forward and (2) backward integration.

Service quality. Service quality has been proposed as a critical determinant of service success (Donovan and Rossiter, 1982; Lambert and Lewis, 1983; Parasuraman et al., 1988; Zimmer and Golden, 1988). While one

could question the inclusion of service quality under the category of organizational factors, we contend that the underlying message from recent literature on service quality is that superior service is an organizational imperative. Quality plays an important strategic role in organizations. Empirical studies lend support to the positive relationship between quality and market share, and are also supportive of a strong positive association between quality and profitability (Buzzell and Weirsema, 1981; Gale and Branch, 1982).

Theoretical perspectives and empirical evidence on the relationship between quality and market share and quality and profitability appear to be equivocal. On the one hand, service quality could be positively related to market share since superior quality may act as a barrier to entry to new competitors and superior quality could force the exit of incumbent firms. On the other hand, a strategy of superior quality may necessitate the creation of the perception of exclusivity and therefore could be incompatible with high market share (Porter, 1980).

EMPIRICAL STUDIES HAVE FORMED MARKETING EXPENDITURE TO AFFECT SALES

In a similar manner, the net effect of quality on profitability can be difficult to predict. On the one hand, Superior quality could require the use of less standardized procedures, and increased sales force spending to support higher levels of customer service that may accompany higher quality (Phillips et al., 1983). In the end, high quality services could be more expensive to produce, and unless the increased costs can be passed on to customers, profit margins would be squeezed, so that quality and profitability could be inversely related. Equally plausible, however, is the argument that quality and profitability are positively related. Profitability could exist due to a number of factors. A strategy of superior quality can lower customer sensitivity to price, thereby making it possible to charge higher prices without harming sales (Buzzell and Gale, 1987). Superior quality can also protect the business from competitive forces (e.g. bargaining power of buyers) that reduce price-cost margins and reduce service costs (i.e. warranty, liability and recovery costs (Bitner, 1990; Garvin, 1988). An emerging consensus in retailing is that customers are no longer motivated to purchase a product or service solely on its characteristics or price. In fact, relative service quality has become the purchase-determining condition in a retail experience (Berry, 1986; Ingene, 1983; Lambert and Lewis, 1983). Empirical work suggests that perceived higher service quality translates into substantially higher profits (Luchs, 1986; Thompson et al., 1985). Thompson et al. (1985) found that:

...in only 15 percent of the markets is service "irrelevant" in the customer perception of quality. In most markets, service plays a significant part in the purchase decision; and in many markets, service is more important than the product. ...service quality is a key to profitability and growth -- even for firms that are thought of as primarily manufacturers (pp. 20-5).

Based on the discussion above, we propose that higher levels of service quality is likely to lead to higher market and financial performance. We also expect high service quality to lower a service provider's riskiness. Thus,

H2a. The financial performance of a service firm will be positively related to the firm's level of relative service quality.

H2b. The market performance of a service firm will be positively related to the firm's level of relative service quality.

H2c. The risk level of a service firm will be negatively related to its level of service quality.

Service image. Unlike search goods, in the case of experience products such as services, consumers cannot infer through simple inspection whether a product is of high or low quality. The potential for variation in service quality, and the general difficulty in assessing service quality, make the evaluation of services difficult as well as riskier than goods (Murray, 1991). This complicates the choice decision for potential customers. Hence, service customers seek more information to make better choices (Deshpande and Krishnan, 1977). Information search is, however, expensive. When information asymmetry exists between buyers and sellers, high-and low-quality services can co-exist in the marketplace (Akerlof, 1970). This forces buyers, ex-ante, to determine the quality of services they buy (Nayyar, 1990). Thus, buyers cannot easily ascertain the competence of the service provider, and the quality and value of the service (Guseman, 1981; Murray and Schlacter, 1990).

A firm's ability to sell high-quality versions of such experience and credence products depends on its reputation/image (Klein and Lefner, 1981). Reputation/image is thus a proxy for quality and other key buying criteria that cannot be easily evaluated. Since other cues are needed in order to evaluate products with greater experience and credence attributes. (Zeithaml, 1981) image is one such major cue. Also, as buyers seek to economize on evaluation costs, the product with the best image in the market is usually chosen since it has the lowest evaluation costs (Rumelt, 1987). Shostack (1977) suggests that since services contain a great amount of intangibility, tangibilizing needs must be attempted in order to make the product more salient to customers. Merrill Lynch's attempt to use the Bull symbol is an illustration of a firm trying to tangibilize the intangible aspects of their business (Berry et al., 1988). Based on these reasons, we propose that:

H3a. The financial performance of a service provider will be positively related to the service provider's level of relative service image.

H3b. The market performance of a service provider will be positively related to the service provider's level of relative service image.

H3c. The risk level of a service provider will be negatively related to the service provider's level of relative service image.

Shared customers. Related to the issue of lowering information acquisition costs of consumers, firms can exploit asymmetries by diversifying and providing multiple services to its customers. Nayyar (1990) argues that each sampling by search or experience contributes toward the information bank that consumers maintain. When a firm introduces a new service, consumers:

...may draw upon the information bank to form associative evaluations of the new service. This "carry-over" of evaluative information tends to reduce information acquisition costs for buyers. Hence, customers who have favorable impressions of current service providers will tend to favor Such providers when making purchase decisions about other services these providers may offer (p. 516).

Furthermore, service providers who have created favorable impressions, in turn, can use their existing relationships to convince existing customers to try their new services rather than convincing new consumers. For example, banks (Citicorp), airlines (American) and retailers (Sears), and travel-bank services American Express) use their existing networks with customers to, grow by extending their presence into a broad range of new activities (Quinn and Paquette, 1990). In sum, a firm that diversifies into services that its existing customers may buy from it could create a competitive advantage. Thus:

H4a. Sharing customers across multiple businesses will be positively related to financial performance.

H4b. Sharing customers across multiple businesses will be positively related to market performance.

H4c. Sharing customers across multiple businesses will be positively related to risk level of the service provider.

MARKETING MIX VARIABLES

In this section, we examine and hypothesize the effects of marketing mix variables on service firm performance and risk.

Advertising/promotional and salesforce expenditures. In general, empirical studies have found marketing expenditures on advertising (Assmus et al., 1984; Tellis, 1988) promotions (Parsons and Abele, 1981) and sales staffs (Gatignon and Hanssens, 1987), to positively affect sales and market share. Expenditure in advertising and promotions act as a strategic tool to penetrate market dominance over current competitors, create and reinforce image and quality perceptions (Mattson, 1982; Moriarty, 1985; Zursky and Jacoby, 1986) and act as an entry barrier (Comanor and Wilson, 1974). On the other hand, threshold-effects in advertising-sales response functions (Lambin, 1976), economies of scale present in advertising expenditure (Rundfelt, 1973) and higher goodwill earned by high market share firms (Lambin, 1976) suggest the possibility of a negative relationship between expenditure in advertising and market performance.

Certain unique properties of services also suggest the likelihood of a negative relationship between advertising expenditure and market share. On the one hand, because services cannot be stored or transported, selling opportunities are permanently lost if they are not converted instantly into sales, hence advertising is required to achieve this objective (Balasubramanian and Kumar, 1990). On the other hand, since services are intangible, search qualities are few and experience qualities predominate. Expenditure in advertising can communicate little about experience qualities to customers (Woo, 1987), thus their importance is diminished for service customers. Broadly, the role of marketing communications is to perform three functions: inform, remind and persuade (Anderson and Rubin, 1986). In service industries, the first two functions are possible, but persuasion is limited by the inability of advertising to convey experience properties (Balasubramanian and Kumar, 1990). Overall, a negative relationship can be expected between advertising expenditure and market performance.

The predominance of experience properties in services suggest that trials (which are relatively risk-free for the customer) are needed. Promotions designed to achieve this objective could not only reduce firm risk levels, but also have a positive impact on market performance. The banking industry's use of contest to encourage consumer use of ATMs is an example of how incentives can promote a particular service (Murray, 1991). In effect, promotions by helping to achieve the third goal of marketing communications, namely persuasion, should be positively related to market performance.

PROMOTIONS SHOULD BE POSITIVELY RELATED TO MARKET PERFORMANCE

The services literature recognizes the importance of personal interaction in creating satisfied customers (Crosby and Stephens, 1987; Parasuraman et al., 1985). Recent work on "relationship marketing" have focussed on the role of salespeople in this regard (Crosby et al., 1990). Lovelock (1981) discusses a "service trinity" where a high-contact service employee (at least in the mind of the customer) (1) runs the organization, (2) sells the output, and (3) is equated by the customer with the organization's output. Thus, the salesperson is the primary -- if not sole contact person for the customer (Crosby et al., 1990). The salesperson is the information provider, a significant influencer in much of consumer behavior, and therefore, has a significant effect on customers' perceptions (Crosby et

al., 1990). As argued by Ingene (1983), higher expenditures on sales force could lead to lower turnover, higher efficiency, more full-time employees and higher service quality. These factors, thus, lead to higher sales, more satisfied and loyal customers and a strong competitive advantage.

The relationship between advertising, promotional and salesforce expenditures and financial performance could be negative. In general, the lower the advertising, promotional and salesforce expenditure incurred in realizing a dollar of sales, the higher should be the business' profits. Lowering advertising and sales force expenditures per unit of goods sold lowers the per unit costs of selling, which in turn increases profit margins. Higher profit margins that result from lower levels of investment should translate into higher returns on investment. Pyrrhic advertising and promotional campaigns, while increasing sales and market share, can lower financial performance. Furthermore, while sales promotions may affect the short-term performance, it may have a negative longterm affect (Gupta, 1988). And, unlike advertising, sales promotions are riskier because they do not reinforce store loyalty. Hence, we propose that:

H5a. The financial performance of a service firm will be negatively related to the: (1) advertising levels, (2) promotional levels, (3) salesforce expenditures.

H5b. The market performance of a service firm will be positively related to: (1) promotional levels, (2) salesforce expenditures, and negatively related to advertising expenditures.

H5c. The risk level of a service firm will be negatively related to advertising levels, and positively to: (1) promotional levels, and (2) salesforce expenditures.

Price. Traditional economic theory suggests that when consumers are rational and reasonably informed, price and market share will be inversely related. Services marketing literature (Zeithaml, 1988) suggests that in most situations in evaluating services, intrinsic cues (physical composition of product) are usually unavailable and thus consumers are limited to extrinsic cues (price, brand name, or store image). Zeithaml (1988) proposed that the use of price as an indicator of quality depends on (among others) (1) availability of other cues of quality, (2) product quality variation within a category of products, and (3) consumers' ability to detect quality variation in a group of products. She proposes that in the case of services, most customers are likely to use price as a proxy for quality. Furthermore, in most situations, consumers are price-seeking (Tellis and Gaeth, 1990) and view a high-priced service provider as providing superior service quality. While a positive price-quality relationship may have positive connotations, by protecting the business from competitive forces and thus causing a reduction in variance in sales and profits, it may create an exclusive image, whereby sales volumes may be reduced. The net effect will cause the relationship between price and market performance to be negative.

With regard to profits, the relationship is situationally determined and thus equivocal. Unlike goods, services are characterized not only by uncertainty of quality, but also by information asymmetry between buyers and sellers. Therefore, consumers are prone to mistrust quality claims and misinterpret price signals (Nayyar, 1990). Since consumers view price as a proxy of quality, low-cost producers who hope to gain a competitive advantage by providing low cost services are likely to be viewed as low quality service providers. Therefore, consumers are less likely to buy such services and thus any likely gains in terms of economies of scale disappear due to the presence of low volumes of business. Such a situation questions the viability of a low-cost strategy for services. However, in some markets buyers may have greater expertise and experience. They may also be price sensitive and in those markets a low cost strategy may be viewed positively (Nayyar, 1990). Thus, a low price strategy is likely to lead to profits. Furthermore, if the demand for the service is elastic, high prices could

lead to reduced demand and a loss in profits. On the other hand, if the demand is inelastic (e.g. catastrophic health care services), increases in price would not affect demand proportionally, and it would have a positive impact on profitability. The equivocal nature of the arguments suggest that the direction of the relationship is unclear and is an empirical issue.

Higher prices may reflect the presence of market power protected by strong entry barriers, weak competitors and bargaining power over buyers (Woo, 1987). Thus, not only would a positive price-quality connotation reduce variance in returns, it could also signal market power and thereby the relationship between high prices and risk level is expected to be negative. Thus,

H6a. The financial performance of a service firm will be related to the relative price of its offering.

H6b. The market performance of a service firm will be negatively related to the relative price of its offering.

H6c. The risk level of a service firm will be negatively related to the relative breadth of its product offering.

Breadth of product line. Product line breadth or assortment has been posited to be an important determinant of service firm (e.g. retail) performance (Ingene, 1983). Developing a broad product line sees the purpose of meeting the heterogeneous needs of consumers. A differentiated product line reduces sales uncertainty (Talaysum et al., 1987), serves to fill niches and reduces opportunities for competition, especially new entrants. In fact, Robinson and Fornell (1985) reported a strong positive relationship between product line breadth and market share. Though the attempt to capture untapped opportunities, by increasing the breadth of the product line, could reduce the volume for each line through cannibalization, overall a positive relationship between product line breadth and market share is expected.

Product line breadth's impact on profitability is not as apparent as its impact on market share. Hayes and Wheelwright (1984) argue that a broader product line with corresponding low volumes for each item in the line results in higher costs, mainly through increases in overhead expenses. The increase is not limited to overhead expenses -- direct labor and material costs can also increase (Abegglen and Stalk, 1985). Additionally, a broader product line increases the complexity of operations leading to increases in overheads (Johnson and Kaplan, 1987; Lubben, 1988), material handling and inventories (Kekre, 1987; Lubben, 1988; McClain and Thomas, 1980), and more diverse process flows (Banker et al., 1988; Karmarkar, 1987). For example, McDonald's attempt to broaden its product line by introducing pizzas and fresh muffins has complicated the manufacturing operations and increased costs by increasing managerial and control requirements (Schlesinger and Heskett, 1991).

On the other hand, economies of scope benefits, through cost complementarity, may be realized, if resources are shared across multiple products. Overall, the increase in costs is expected to be greater than the benefits from the economies in scope. Thus, product line breadth is expected to have a negative impact on profitability. So:

H7a. The financial performance of a service firm will be negatively related to the relative breadth of its product offering.

H7b. The market share of a service firm will be positively related to the relative breadth of its product offering.

Customization. Standardization involves limiting service options and achieving consistency in output by adopting a production-line approach to service creation (Levitt, 1972). In search of greater productivity and

ability to compete on price, many service firms are moving away from customization toward a "service-factory" type environment (Maister and Zovelock, 1982; Schmenner, 1986). As opposed to customization, standardization leads to economies of scale, superior quality control (through conformance with standards), and lower employee costs (Lovelock, 1981). In industries such as fast food, this assemblyline approach to service has led to considerable success (e.g. McDonald's[21]). Customization, on the other hand, achieves the objective of moving away from price competition and aids in commanding a price premium (Porter, 1985). However, customization leads to increased costs of production, since it eschews from any form of economies in production. Customisation, in most instances, involves the use of assets which are specific to a task, which in turn acts as a major barrier to exit. Such dedicated assets also reduce flexibility of firms and could cause a reduction in profits. However, the price premiums gained by customization could lead to a net positive relationship between customization and profitability.

By standardizing their output and operating procedures, service firms could run the risk of ignoring variations in demand, customers could become tired of a homogenized output, and service quality could deteriorate because of employees performing monotonous tasks (Lovelock, 1989)[3]. Customization, by attempting to meet the specific needs of a customer group, reduces their search costs, while at the same time increasing the switching costs for competition. The process of customisation leads to an increase in loyalty from the specific customer group. However, customization could lead to a focus on niche markets rather than mass markets. Thus, the relationship between customization and market performance is expected to be negative.

By focussing on niche markets the service firm tends to increase its risk levels. Changes in demographic and economic forces could wipe out a niche market and thus:

H8a. The financial performance of a service firm is likely to be positively related to its level of service customization.

H8b. The market performance of a service firm is likely to be negatively related to its level of service customization.

H8c. The risk of a service firm is likely to be positively related to its level of service customization.

COMPETITIVE EFFECTS

The nature and extent of competition in the service sector have changed -- not only has traditional competition become more aggressive, but it has increased in intensity in recent years with the advent of nontraditional competitors (Sheth, 1983). In this section we have attempted to examine the impact of three competitive factors, namely, order of entry, number of competitors and relative market share and examine their impact on performance and risk.

Order of entry. Prior empirical and theoretical research suggest that pioneers enjoy market share and profitability advantages over later entrants (Bond and Lean, 1977; Lambkin, 1988; Robinson, 1988; Robinson and Fornell, 1985; Urban et al., 1986; Whitten, 1979). It is argued that firms which pioneer markets, gain advantages from the following sources:

- (1) pre-emption of resources;
- (2) ownership of proprietary technology;
- (3) ability to lock in consumers; and
- (4) scale and experience effects.

For example, pioneering firms could preempt competition from access to resources, such as, natural resources (Aaker, 1989), geographical market locations (Leiberman and Montgomery, 1988), product positioning (Carpenter and Nakamoto, 1984), and marketing channels (Aaker, 1989). Additional advantages can range from a more typical instance as acquiring resources at lower costs than later entrants, to a more extreme case as "locking out" later entrants from access to needed resources. For example, the experience of several airline entrepreneurs who were locked out of needed access to boarding, i.e. airport gates (Heskett, 1990), is an example of the latter. HIGH SWITCHING COSTS GIVE FIRMS THE ABILITY TO LOCK-IN CUSTOMERS

While early entry offers the possibility of "locking out" one's competition, high switching costs give firms the ability to "lock in" consumers. Several switching costs can arise, such as:

- (1) initial investments that the buyer makes in adapting to the seller's products;
- (2) supplier-specific learning by the buyer;
- (3) contractual switching costs created by the seller;
- (4) risk and uncertainty about a later entrants product quality; and
- (5) moving away from an established industry standard (Kerin et al., 1992).

For example, Porter (1985) cites the example of hospital management contracts, wherein the pioneer signed up hospitals and gained a significant edge in contract renewals because changing management firms would lead to increased costs in terms of disruption caused by a new administrator, a new computer system, and other attendant changes. Finally, pioneers can gain from scale and experience effects. By being first in the market, they are in a position to build volumes and benefit from economies of scale. Furthermore, the longer the period the market is exclusively the pioneer's (the period before the second entrant enters the market), the greater the time for the pioneer to gain from the learning curve and experience effects. Studies have also proffered a dismal outlook for late entrants. For example, Robinson found that the average market share for pioneers was 7.95 per cent higher than early followers, which in turn was 14.27 per cent higher than that of late entrants (Robinson, 1988). An implicit assumption, however, of these studies seems to be that the market share differential gained by first-movers would translate into financial performance differentials as well (Robinson and Fornell, 1985). Since theoretical and empirical evidence on the risk effects of entry strategy is less clear, we do not propose nor test the effects of the order of entry on risk levels of a service firm. Thus:

H9a. The financial performance of a service firm should be inversely related to its order of entry.

H9b. The market performance of a service firm should be inversely related to its order of entry.

Market share effect. The market share-profitability relationship has been extensively studied in the marketing literature. A recent meta-analysis of both PIMS-based and nonPIMS-based studies found that the average market share elasticity with respect to profits was significant and positive (Szymanski et. al., 1993). Both efficiency theory (Buzzell and Gale, 1987; Day and Montgomery, 1983) and market power theory (Martin, 1988; Schroeter, 1988) support this positive relationship. A high market share is beneficial due to (1) experience curve effects, (2) scale effects, (3) scope effects, (4) ability to extract concessions from channel members, and (5) setting prices rather than being a price taker.

In the services (e.g. retailing) context, the relationship takes on particular significance because of the emphasis placed on market share and

sales volume during the 1980s. In retailing, market share has been found to be positively related to profitability (Schoeffler, 1987). However, an emphasis on growth rate or market share size is a strategically sound strategy only if the market share structure exhibits some degree of stability; i.e. low variance in the market share structure (Finn, 1987). A high variance or instability of market shares suggest that service firms may be pursuing market share strategies, for the sake of market share gain, rather than for any strategic goals, thus leading to pyrrhic market share battles.

High market shares are expected to have a negative relationship with firm risk levels. Large share firms may be better able to mitigate the impact of adverse events (Saloman and Siegfried, 1977; Sullivan, 1978; Woo 1987). Industrial organization economics suggest that firms with market power may also be able to pass on their risk to consumers through price adjustments (Moyer and Chatfield, 1983), and monopoly power may provide firms with more attractive opportunities and enable them to enjoy superior risk return relationships (Heggestad, 1977). Hence, we propose:

H10a. The financial performance of a service firm will be positively related to its relative market share.

H10b. The risk level of a service firm will be negatively related to its relative market share.

Number of competitors. Finally, we consider the effects of the number of competitors on a service firm's relative market share, so as to provide for a more complete picture of the key factors affecting service firm performance. We limit our analysis to the effects of the number of competitors on market share, and not on financial performance, or risk levels, because theory and empirical evidence suggest that these latter effects are indirect, and are better captured by examining market share effects on financial performance and retail risk levels. As the number of firms in the market go up, the likely proportionate share of each firm goes down (Porter, 1980). Thus,

H11. The market share of a service firm will be negatively related to its number of competitors.

Table I provides a summary of the hypothesized relationships between the independent variables and the three dependent variables. (Table I omitted) The Appendix describes the PIMS database and the methodology used in this study.

RESULTS

Prescott, Kohli, and Venkatraman (1986) argue that the relationship between market share and profitability is context specific, and that an uncritical pooling of data across heterogeneous samples will lead to misleading conclusions because the relationships between variables are often specific to industry groups, business types, etc. Although their interest was on the competitive environment of the business, their arguments could be extended to the choice of sample; i.e. services versus goods. A number of research studies have supported the contingent role that industry/business type has on the relationship between independent and dependent variables (Buzzell and Gale, 1987; Churchill et al., 1985; Robinson, 1988; Robinson and Fornell, 1985). In line with these contentions and empirical findings, this study attempts to specifically examine the role of key strategic variables on performance and risk in service industries. All the models achieved overall statistical significance. The support offered for each of the hypotheses is discussed in turn. Hypotheses one to four address the relationship between organizational variables and the measures of performance and risk. Vertical integration was related to both relative market share and financial performance. Vertical integration was not related to risk. In the case of both financial and market performance, while forward integration was statistically significant, backward integration was

not. Hypothesis two states that service quality would be positively related to relative market share and financial performance, and negatively related to risk of the firm. Statistical support was found for service quality negative relationship to variation in performance (or risk), but not for service quality's relationship with the two measures of performance. Service image was found to be positively related to market share and negatively to risk. Thus support was found for hypotheses 3b and 3c, but not for 3a. Hypothesis four dealt with the relationship between shared customers and firm performance and risk. A shared customer based was positively related to both market share and financial performance. Thus support was found for hypotheses 4a and 4b, but not 4c.

Hypotheses five to eight dealt with the relationship between marketing mix variables and the dependent variables. Both advertising and sales force expenditures had, as posited, a negative impact on financial performance. However, promotional expenditure had a positive impact (not significant) on financial performance rather than in the hypothesized direction. These marketing mix variables did not have a statistically significant relationship either with market share or with risk. However, except for promotional expenditure in the case of relative market share, the relationship of the other independent variable with relative market share and all three variables with risk were in the posited direction.

As posited, relative price was negatively related to risk. Although, not statistically significant, relative price had a negative relationship with both ROI and RMS. Product line breadth had, as posited, a negative impact on financial performance, but was not related to market share (as hypothesized). Customisation was positively related to relative market share (not as hypothesized), and not related to risk and financial performance.

Hypotheses nine to 11 focus on the relationship between competitive factors and performance. Two surprising findings were:

- (1) order of entry not being related to market share; and
- (2) relative market share being positively related to risk.

In line with most prior research findings, market share was positively related to financial performance. As the number of competitors go up it has a negative impact on market share, thus providing support for H11.

Overall, the models described a reasonable amount of variance in the dependent variables. The risk model has the least variance explained with a R^2 of 0.33. The results are reported in Table II. (Table II omitted) The regression analyses did not suffer from multicollinearity with the highest variance inflation factor in all the models being 5.89, as opposed to a critical value of 10.

DISCUSSION, IMPLICATIONS AND CONCLUSIONS

Our empirical results using the PIMS database suggest the following major findings with respect to the three major dimensions of performance. One of the overall findings of the study is that firms should look at market, financial, and risk performance along the dimensions specified in this study because strategic variables affect each of these dimensions differently as pointed out in these five major findings. We first outline the eight broad findings and implications and then elaborate on them.

- (1) Forward integration increases market share and has a significant and positive impact on financial performance.
- (2) On the other hand, backward integration strategies do not seem to affect a firm's market or financial performance per se.

(3) Interestingly, service quality did not have a direct effect on a service provider's financial or market results, but it did lower a firm's strategic or business risk.

(4) A firm's reputation and service image not only increases market share but also lowers business risk. Therefore, it appears that while managerial perceptions of service quality may impact on actual service quality, this study shows that it is the firm's reputation and perceptions of service image that ultimately drive performance.

(5) Synergy of business operations and marketing activities increases market share, improves financial performance, and lowers business risks.

(6) High market shares appear to be double-edged swords according to the results of this study. On one hand, high shares improve the financial position of a firm, but, they also increase its risk levels.

(7) In contrast to conventional wisdom, customizing services actually increases market share.

(8) Sales promotions appear to have a positive effect on a firm's risk levels. In contrast, advertising has a negative effect on profitability but it has a positive effect on relative market share and it also lowers a firm's risk level.

We elaborate on the implications of these points from research and managerial perspectives next. Marketing academicians have stressed the need for research in the marketing discipline to focus on synergy and test propositions that firms which utilize synergy in their marketing programs will perform better than those firms which do not (Jain, 1983; Wind and Robertson, 1983). This study partially supported this contention. The notion of relationship marketing in service industries could be related to this issue (Berry, 1986; Gummesson, 1987). If it pays to share customers across business units then service providers that do develop excellent relationships can utilize the opportunity to diversify into related areas.

Although the services literature has strongly emphasized the importance of service quality in influencing customer satisfaction, this study did not find any significant impact on firm performance. However, service quality seemed the purpose of reducing firm risk. This finding could have interesting implications for firms in declining and recessionary markets. Given the distinctive nature of services, the image of the service becomes a key strategic variable. As suggested in the literature, service image appears to help in reducing uncertainty and aiding consumers in their decision-making process. In other words, although it did not influence profitability, it had a positive impact on market share and was a risk reducer. If one views service image as encompassing physical evidence then this finding provides support for one of the three Ps (of the expanded marketing mix for services) suggested by Booms and Bitner (Booms and Bitner, 1981).

Some counter-intuitive findings need discussion. In contrast to our hypothesis, sales promotion has a positive impact on profitability. Although there is a stream of literature that argues about the dangers of sales promotion, there are some that seem to think otherwise (Varadarajan, 1986). This study seems to be supporting the latter researcher's arguments. Furthermore, as suggested in the theory section, promotions may be relatively more important in experience products such as services. In many situations, promotions do provide a way to reduce the risk of trial and thus seems to be a success producer for service firms (Varadarajan, 1985). Expenditures in advertising and the sales force, and having a broad product line, negatively influences profitability. Although having a high relative market share influences financial performance positively, it appears to increase the variance in returns. Thus, depending on the objective of a firm, having a high market share could help or hurt its objective.

Again in contrast to our hypotheses, order of entry was not statistically related to market share. No prior study had found support for an inverse relationship between order of entry and performance, although it is logical to argue that pioneering advantages would translate into financial performance advantages too. In service industries it appears that it does pay to pioneer markets. Customization being positively related to market share goes against our hypothesis. However, as suggested earlier, recent trends seem to support such a finding. Smaller speciality stores and breakthrough retailers have drastically cut into the markets of big merchandisers such as Sears. Many of them are in a position to use superior service and product knowledge to attract customers willing to pay higher prices (Schlesinger and Heskett, 1991). Finally, relative market share being positively related to risk suggests that the risk reduction benefits of market share could not be supported. Woo found similar results in turbulent markets, whereas in competitive and stable markets, market share had a favorable impact (Woo, 1987). Since no attempt was made to measure the relative stability of the services market, we are not in a position to confirm Woo's findings, although future research could be directed to explore it in greater depth.

Although this study examined the role of strategic factors on service firm performance, it can be considered at best exploratory in nature. More in depth studies are needed. Even this study pooled consumer and industrial services (the database did not allow us to separate the two), and, in future, studies that separate not only these two sectors, but also do not assume that the service sector is homogeneous (controls for service industry characteristics are required) are needed. Further, a limited set of independent variables were examined in this study. Also, while the dependent variables used in this study were richer and more multi-faceted than commonly used, alternate dependent variables should be considered in future research. For example, the risk variable used in this study is financial in nature. Other risk variables could include business risk or strategic risk, i.e. the effects of the strategic variables on the strategic viability and competitive position of a service firm. Additionally, more complex models that not only introduce interaction terms, but also look at non-linear as well as multi-stage models are called for (Robinson and Fornell, 1985). Assuming simple linear relationships may be too simplistic in many cases, where the relationships could be a lot more complex.

Shared resources appear to play an important role in service industries, this study examined only one of the resources; others such as channels of distribution or sales force may need study also. People play a major role in service industries, and this study did not examine the role of implementation in the process. Studies that incorporate implementation variables could play important roles in explaining variations in performance and risk. Finally, this study examined only average performance, rather than the range of performance. Research that examines the key differences between successful and unsuccessful service firms appears to be a fruitful direction to take.

NOTES

1. Unless otherwise stated throughout the article, we use the terms financial performance, profits, profitability, and return on investment (ROI) interchangeably. Likewise, competitive performance, market performance, market share and relative market share (RMS) are used interchangeably.

2. However, McDonald's has recently faced tremendous pressure, with sales and operating income falling. See Schlesinger and Heskett (1991) for an excellent critique of the assembly-line approach, and Therrien (1991) for an illustration.

3. In fact, Schlesinger and Heskett (1991) argue that these things are happening at McDonald's.

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APPENDIX: METHODOLOGY

SAMPLE

The PIMS (Profit Impact of Market Strategy) database was utilized in this study. The database contains information on marketing strategy, and market place data on thousands of strategic business units. Recent empirical research in strategy has suggested that analysis at the business unit level is the most useful unit of analysis, as it explains the most variance in performance (Rumelt, 1973). Although some question the external validity of the database since it consists entirely of Fortune 500 firms, Marshall and Buzzell (1990) found remarkably similar results when the PIMS and FTC line of business data were used to estimate their profitability model. Although the database is not without limitation (Anderson and Paine, 1978; Parasuraman and Varadarajan, 1988; Phillips et al., 1983; Ramanujam and Venkatraman, 1984), the database has the information necessary to test the hypotheses developed. We used the SPI 4 database (i.e. four-year averaged data) thereby smoothing out any abnormal fluctuations in the data. The database contained 81 business units in the services (both industrial and consumer) industry.

DEPENDENT VARIABLES

Before examining the empirical results of the study, a critical discussion of the dependent variable (performance) is warranted. Keeping with the recommendations of several researchers this study employed two broad categories of dependent variables, (1) Return measures and (2) Risk measures. Finn (1987) recently expounded on the implications of the economic, managerial and the financial perspectives on assessing attractiveness of retail markets. Hence, we adopt multiple criteria of performance, namely size, rate of return and sensitivity of rate of return. Return on investment (ROI) and relative market share (RMS) of the service firm were used as one set of measures. The first measure, ROI, is a popular accounting ratio and is commonly used in business analyses. Relative market share is a commonly used measure of performance in marketing strategy and is generally thought to capture the market situation better when cross-sectional data is pooled across industries (Varadarajan and Dillon, 1982). Since the services data in the PIMS database consists of both consumer and industrial services and it is not possible to separate the two, relative market share is a more appropriate measure. Furthermore, a desirable feature of the relative market share measure is its ability to capture more comprehensively the scale and bargaining effects associated with a business's relative size in its served market (Buzzell and Gale, 1987).

Risk has been ordinarily recognized as the variation in level of return (Bowman, 1982; Bowman, 1980; Jemison, 1987). Risk was measured as ROI variation -- the sum of the absolute deviations around the average return on investment over the time period incorporated in this study. Though an internal accounting measure of risk was used, several researchers have demonstrated that internal accounting measures of risk are good substitutes for external securities-market measures of risk (Beaver et al., 1970; Beaver and Manegold, 1975).

INDEPENDENT VARIABLES

Operational definitions of the predictor variables are available from the PIMS database manual as well as Buzzell and Gale (1987). A key point needs to be noted. Relative measures are used for promotions, advertising, quality, product line breadth and vertical integration to capture the fact

that relative rather than absolute levels of these variables likely play a more important role in people's buying decisions (Petroshius and Monroe, (1987)).

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The authors contributed equally to the article. They thank the Strategic Planning Institute for the data. The second named author thanks the Texas Tech University's Research Fund for support for this study.

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Business Wire

Dec 4, 2001

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Author/s:

Business/Technology Editors

BILLERICA, Mass.--(BUSINESS WIRE)--Dec. 4, 2001

Provides A Powerful Implementation of the Java Transaction Service
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SilverStream Software, Inc. (Nasdaq: SSSW) today announced the availability of jBroker(R)™ 1.0, the newest member of the jBroker product suite of enterprise class Java and XML based middleware products. jBroker™ (transaction manager) is the distributed transactions component of the jBroker platform, providing a solution that addresses the Java Transaction Service (JTS) requirement of the latest release of the J2EE specification v.1.3.

Like all of SilverStream's jBroker products, jBroker™ is 100% Java-based and open, so it can be flexibly deployed to any Java development environment. A new component of the SilverStream eXtend(TM) Application Server, jBroker™ is also available separately for ISVs and OEMs that require a J2EE 1.3 compatible distributed transaction middleware solution. JTS specifies the implementation of a transaction manager, which supports the Java Transaction API (JTA) specification at the API level and implements the Java mapping of the Object Transaction Service (OTS) specification below the API. A JTS transaction manager provides the services and management functions required to support transactional demarcation and resource management, synchronization, and propagation of information specific to a particular transaction instance.

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File 9:Business & Industry(R) Jul/1994-2002/Oct 10
(c) 2002 Resp. DB Svcs.

File 15:ABI/Inform(R) 1971-2002/Oct 11
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***File 15: Alert feature enhanced for multiple files, duplicate removal, customized scheduling. See HELP ALERT.**

File 16:Gale Group PROMT(R) 1990-2002/Oct 11
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File 75:TGG Management Contents(R) 86-2002/Sep W5
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File 180:Federal Register 1985-2002/Oct 11
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File 256:SoftBase:Reviews,Companies&Prods. 82-2002/Sep
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File 267:Finance & Banking Newsletters 2002/Oct 10
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File 647:CMP Computer Fulltext 1988-2002/Sep W4
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File 761:Datamonitor Market Res. 1992-2002/Oct
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***File 761: File has resumed updating with Consumer Goods reports. See HELP NEWS 761.**

File 768:EIU Market Research 2002/Oct 02
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Set	Items	Description
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Your SELECT statement is:

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Items	File
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Examined 50 files	
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Examined 150 files	
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Examined 350 files	

No files have one or more items; file list includes 356 files.
One or more terms were invalid in 189 files.

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Your SELECT statement is:

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TRANSACTION AND DATABASE AND PD<=970801

Items	File
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3	9: Business & Industry(R)_Jul/1994-2002/Oct 10
Processing	
>>>File 15 processing for PD= : PD=970801	
>>>File 15: started at PD=710000 stopped at PD=930107	
2	15: ABI/Inform(R)_1971-2002/Oct 11
Processing	
>>>File 16 processing for PD= : PD=970801	
>>>File 16: started at PD=19900101 stopped at PD=19950623	
1	16: Gale Group PROMT(R)_1990-2002/Oct 11
Processing	
1	75: TGG Management Contents(R)_86-2002/Sep W5
Processing	
Examined 50 files	
>>>File 180 processing for PD= : PD=970801	
>>>File 180: started at PD=19850102 stopped at PD=19921224	
1	180: Federal Register_1985-2002/Oct 11
1	256: SoftBase:Reviews,Companies&Prods._82-2002/Sep
4	267: Finance & Banking Newsletters_2002/Oct 10
Examined 100 files	
Examined 150 files	
5	541: SEC Online(TM) Annual Repts_1997/Sep W3
Processing	
13	542: SEC Online(TM) 10-K Reports_1997/Sep W3
Processing	
Examined 200 files	
Examined 250 files	
2	647: CMP Computer Fulltext_1988-2002/Sep W4
Processing	
Examined 300 files	
9	761: Datamonitor Market Res._1992-2002/Oct
1	768: EIU Market Research_2002/Oct 02
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12 files have one or more items; file list includes 356 files.	
One or more terms were invalid in 189 files.	

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- If you're searching "Citations and Abstracts", try the same search in "Article text".
- If you're searching *Current (years)*, try the same search against the *Backfile* or vice-versa.
- If you're searching only one or two collections, use [Change Collection](#) to add another or search ALL available collections.
- Remove any limit to Full text articles or Peer reviewed.
- If you're using [Basic](#) or [Guided Search](#), don't enter a question or long sentence. Instead, use the AND operator to link important words of the sentence together. For example, instead of *What is the largest continent on Earth?*, search for *largest AND continent AND earth*.
- Use [Natural Language Search](#) to enter a question in everyday English.
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Refine your search. Enter a word, words or specific phrase.

"product instance" AND (relation? d **Search**

Date range: **Backfile (1986 - 1998)** ▼

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- ☒ Show results with full text availability only
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Refine your search. Enter a word, words or specific phrase.

"billing instance" AND (relation? d **Search**

Date range: Backfile (1986 - 1998)

Publication type: All

Search in: Article text

- ☒ Show results with full text availability only
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Date range: **Backfile (1986 - 1998)** ▼

Publication type: **All** ▼

Search in: **Article text** ▼

- ☒ Show results with full text availability only
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Date range: **Backfile (1986 - 1998)** ▼

Publication type: **All** ▼

Search in: **Article text** ▼

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4/9/5 (Item 2 from file: 267)
DIALOG(R)File 267:Finance & Banking Newsletters
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00004281

Banc One, First USA Merger Shakes Up Industry
Mergers & Acquisitions Report
February 3, 1997 VOL: 10 ISSUE: 5 DOCUMENT TYPE: NEWSLETTER
PUBLISHER: INVESTMENT DEALERS DIGEST
LANGUAGE: ENGLISH WORD COUNT: 976 RECORD TYPE: FULLTEXT

TEXT:

]Banc One Corp.'s acquisition of First USA Inc. may prod mergers among the three other rivals in the credit-card industry.
]Two weeks ago, Banc One formally announced its plans to acquire monoline bank First USA the fourth-largest issuer in the nation with \$22.4 billion in managed credit-card receivables.
]Besides joining two major players in the industry, the merger will produce the nation's third-largest card operation, with 32 million cardholders and managed receivables of \$35 billion.
]With the exit of First USA from the stand-alone fray, many in the market are asking whether the remaining three issuers are ripe for the picking as well.
]The answer to that question remains unclear. Some sources said the marriage of First USA and Banc One makes perfect sense, as each has traits the other desires.
]But will it make sense for MBNA America Bank, Advanta Corp. and Capital One Financial Corp.? Analysts noted that each of these stand-alone credit-card banks has looked beyond credit cards as a source of future growth, particularly as the hot credit card market shows signs of cooling.
]But despite run-ups in the stocks of the three monolines, no one for sure knows if the First USA/Banc One merger is the start of larger trend.
]While not expressly denying that a merger was possible, Advanta "believes pretty strongly in the business and are continuing to grow it," said Janet Point, vice president of investor relations, adding that the chairman owns 28% of the company.
]One thing is clear, however: Each bank is at a juncture as far as its credit-card business is concerned, sources said. Lenders are realizing the fat profits linked with a traditional credit-card operation aren't what they used to be.
]Capital One, for instance, is looking to leverage its information database to find other areas in which the same technology could be used to market products that are both financial and nonfinancial.
]Advanta already has its product base as well, offering home equity and auto loans and diversifying its credit-card operation with co-branded cards, including one with American Express.
]MBNA, the largest of the monolines, is bolstering its heavy reliance on affinity cards with a platinum card that could help keep attrition rates low.
]"Each is tackling [change] differently," a researcher said. "Some develop other products, while others go into insurance or closed-end loans or look at autos and home equity loans."
]But beyond that, the credit-card industry overall is bracing itself for change. One analyst called last week's merger part of a trend in which troubled credit-card shops join more successful ones.
]As early as 1995, the market saw Norwest Bank, Comerica and Mellon Bank sell their credit-card portfolios to stronger shops. Barnett Bank sold to Household Bank its noncore portfolio and also ceded management of its core portfolio to Household.
]"Expect that trend to continue, then you'll see competition between [credit-card banks] ratchet up again," the analyst said.
]"A lot of people thought that with credit scoring it would be nice and easy to emulate the monoline companies," one credit card banker said.

"Losses were in the stratosphere. You'll see more consolidation."

]Then there's the merger question. One source quite familiar with the monolines said some are more ripe than others.

] "There are a number of banks looking at portfolio acquisitions," the source said. "They are national banks, but [they] have credit-card portfolios that have not performed well."

]If nothing else, the merger provides an alternative way for stock analysts to value the monoline issuers, Advanta's Point said.

]For Banc One, the deal will vault the company into the upper echelon of U.S. banks and bolster its reputation in both the credit-card industry and asset-backed securities market.

] "From a credit-card perspective, it's a great strategic move," said Beth Starr, senior vice president at Lehman Brothers.

]First USA hopes to use the alliance to broaden its range of financial services, something it had been planning to do even before the merger. "We were already moving in that direction," said Jeff Uncle, First USA's vice president of investor relations.

]The general consensus on Wall Street last week was that the merger will be a win-win situation for the two companies.]

]The agreement calls for First USA shareholders to receive 1.1659 shares of Banc One stock for each First USA share, a deal valued at \$7.3 billion. The transaction is scheduled for completion on May 31, Banc One said.

]Under the arrangement, First USA chairman and chief executive officer Richard Vague will retain his title and report jointly to John McCoy, chairman and CEO of Banc One, and Richard Lehmann, Banc One's president and chief operating officer. First USA will continue to operate under its current name.

]In terms of its position in the ABS market, the merger could not have come at a better time for Banc One.]

]Just two weeks ago, the bank reported negative excess spread for December after chargeoffs jumped to 9.34%, which prompted Moody's Investors Service to put nine of its 10 outstanding transactions on review for possible downgrade.

]But given First USA's track record as a sound underwriter, market participants said the merger would significantly improve Banc One's reputation in the ABS market.

] "You get a sense that First USA does a better job of originating and servicing their receivables," Starr said. Such traits are common for the monolines, because credit cards "is all they do," she added.

]After the merger, First USA will take full responsibility for both its existing portfolio and Banc One's \$12.6 billion pool of receivables, Uncle said.

]One thing ABS officials said they hope will change after the merger is Banc One's lack of openness about its outstanding transactions, which played a major role in Moody's decision. - Adam Reinebach/Jay Sherman/Chris O'Leary

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COMPANY NAMES (DIALOG GENERATED): Advanta Corp ; American Express ; Banc One Corp ; Barnett Bank ; Capital One Financial Corp ; Comerica ; First USA Inc ; Household Bank ; Lehman Brothers ; Mellon Bank ; Moody 's Investors Service ; MBNA America Bank ; Norwest Bank
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4/9/6 (Item 1 from file: 761)
DIALOG(R) File 761:Datamonitor Market Res.
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00062865

Key Issues 2: 2.4 CUSTOMER FOCUS

Main Title: IT in UK Retail Banks and Building Societies
Pub. Date: November 01, 1995
Source: DATAMONITOR
Telephone: 0171-625 8548
Word Count: 1346 (2 pp.)
Language: English

Improved profitability through customer information
The profitability of banks and building societies can be improved through the targeted use of current accounts as an information source for the selling of other financial products. As the population becomes more financially sophisticated, customers are more likely to seek higher returns from their savings and are less likely to leave idle funds in current accounts. The amounts maintained in current accounts are increasingly used for transaction purposes only.

Details of basic customer transactions are an important indicator of the market for other financial products. With increasing automation, institutions will be better able to monitor customers' financial habits, directing suitable products to them and measuring risk more effectively. Current accounts may not be large earners (if at all), but can be lead generators for more profitable products such as bancassurance.

Getting closer to the customer

The major retail banks have lost many of their senior people who used to have a strong service mentality. Over the past few years, the banks have developed a poor service profile (but better than that of the insurers) being more concerned with not losing money than actively increasing revenues. This is now changing as they attempt to cross sell financial products to their customers.

Building societies do not have such a poor service image, and can capitalise on this to sell more advanced financial products to their current customers, and attract new ones away from banks.

The banks ideally wish to develop a relationship with all of their customers, and not just the most affluent. The top 20% of their customers are the ones that are profitable for the banks in terms of their current account; all of these customers tend to have more than 2.5 products each. The remaining 80% tend to have only one product with the bank. A product is any financial service, for instance, an account, a mortgage, a loan, a pension plan etc. The challenge is to sell other products to the 80% who are not profitable for the bank and make them profitable. It is not necessarily a good idea to get rid of all of your unprofitable customers and concentrate upon the profitable ones.

The important issue for the banks following this strategy (make the 80% profitable) is to provide a consistently good service to all customers, whenever and wherever they wish to take that service.

One of the ways that both the banks and the building societies have tried to improve their level of service is by developing customer databases. Building a centralised, customer-related database or customer information file and delivering that information to bank staff is seen as one of the most important exercises a bank can tackle. The intention is to generate a rounded picture of the customer, showing all the financial services he or she has at present with the bank, and thereby indicating which other products that person might take as well.

The objectives of the database projects have been to improve sales and marketing by better targeting and to give better customer service. Yet assembling the central database is only part of the solution. The next

stage is how to access the information and how to use it. In public relations terms, the customer database should, in theory, be a resounding success. People generally respond well on realising the staff member they are talking to has all the customer's details to hand, and better marketing should mean an end to 'junk' mail that is of no relevance to many of the people who receive it. However, public attention has been focused on arguments about which types of cross selling should be allowed and what data the banks are holding on people. The other main problem for the larger banks such as NatWest or Barclays has been overcoming the cultural hurdle and encouraging local branch staff to use this information effectively. Small banks such as the Allied Irish Bank (AIB) can bring together all of the branch managers and go through the system. Bigger banks have far more work to do. Some of the smaller banks such as AIB use outsourcing to help with the transition. AIB does not have a big on-line, branch-based customer information system to deliver details on every customer to the branch. Instead, it has a contract with a direct marketing bureau which takes AIB's own data and gives it back to the bank in a format which it can use for marketing and building customer relationships. The advantage for AIB is that by outsourcing the processing requirements, staff can learn a new method of banking without having to worry about new technology at the same time.

Customer loyalty

Banks have always had problems commanding the same degree of customer loyalty and trust that some major retail groups can. While banks go to great efforts to attract new customers, they are often accused of taking existing customers for granted. John Poppleton, marketing director of the Oxford Street Association and formerly Marks and Spencer contrasted the successful retailer's philosophy of customer care and quality control with the "incompetence and insensitivity" displayed by the banks. Opening hours are inconvenient, communications with customers are often poor. "The banks have lost the personal relationship with customers, which they are now abusing to recoup losses made elsewhere". Building societies do not suffer as much as banks in this respect as they are perceived generally as giving good customer service, however, there is a feeling that they are not as professional as the banks, and so need to change this aspect of their image to improve their customer appeal.

In future, the dissatisfied customer will be able to turn to new providers of financial services - retailers. In the US, Sears is now generating more income from financial services than from its core retail business. IT is crucial to the retailers' move into finance and whereas the banks tend to use technology to keep the customer at arm's length (e.g. ATMs and automated branches), retailers are far more expert in using IT to get closer to their customers' needs.

The retailers use their IT networks to collect information about customers and their purchases, information that can be used in planning new product launches, including financial products. Starting with its charge card in 1985, M&S has gone on to insurance products, personal loans and investment products. Research has shown that one third of these investors had never before bought into unit trusts or investment schemes. The point seems to be, that financial products hold no intrinsic attraction to the consumer, merely being a means to an end, i.e. efficient use of money. Financial products are complex and difficult to understand and the advertising often makes it difficult to differentiate products. Customer satisfaction comes more often from dealing with helpful, efficient staff than from the specific features of a cheque account.

The US has highlighted two issues that are expected to reach Europe during the mid-1990s:

- consumers' expectations of banks are defined by the performance of leading retailers. Customers would like the banks to act more like retailers;
 - there is customer demand for more self-service banking.
- Seafirst Bank of Seattle has tackled these issues in several ways. Firstly, it has extended branch opening hours, in addition, it now has 37 "in store" branches, mostly in supermarkets. Secondly, it has offered a guarantee that

if you spend more than 5 minutes queuing in the bank, you get dollars 5 back. But the main strategy has been to get people to use self-service (and therefore low cost) delivery mechanisms. There is a free self-service cheque account with unlimited use of ATMs and a 24 hour telephone line. However, there is a charge to talk to tellers or ring up about routine transactions. So there is a price incentive for the customers to use the self-service delivery mechanisms. New installations planned by the bank, for non-bank locations will include a telephone booth where customers can study product information and telephone the bank, an ATM, and an interactive video terminal.

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Country: UK
Industry: SOFTWARE AND SERVICES
Company Names (DIALOG Generated): Allied Irish Bank ; Customer ; M & S ;
NatWest ; Oxford Street Association ; Seafirst Bank of Seattle
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4/9/7 (Item 1 from file: 768)
DIALOG(R) File 768:EIU Market Research
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00019645

STRATEGIC DERIVATIVES: DRAGONSLAYER NEED NOT APPLY(2 of 2)

Main Title: STRATEGIC DERIVATIVES
Pub. Date: FEBRUARY 1995
Source: THE ECONOMIST INTELLIGENCE UNIT LIMITED
Telephone: (212) 554-0600
Word Count: 1546 (2 pp.)
Language: English

Legal action

Derivatives-and numerous other financial instruments-are increasingly in the spotlight in courtrooms. Corporate managers are, for instance, being sued by shareholders for losing money on derivative transactions. These same companies are as likely as not to have already been using the courts to sue the banks that delivered the instruments. At the same time, onlookers can't help but be amazed to hear that still others are being sued for failing to hedge at all. Box 1.2 provides a synopsis of some of the more intriguing cases.

The legal waters in which derivatives actually lie are decidedly muddled. On the one hand, many lawyers-particularly in-house counsel at derivatives dealers-cling to the notion that swaps and other derivatives are not true securities. As such, dealers are not legally encumbered by the numerous duty and conduct requirements of the Securities Exchange Act of 1934. Speaking off the record, a spokesman for a major US law firm explains, "Once a dealer has established that the person on the other end of the phone is a legitimate representative of the counterparty with dealing authority, all obligations are satisfied." Essentially, "from there on, it's 'let the buyer beware.'" A spokesman from a second law firm agrees, stating that if the courts were to now say otherwise, "that would be a significant about-face from the statutes."

But in fact, the case is not so open and shut. As Mr Breeden explains, it's true, "no court of law has ever ruled so, but the SEC has always maintained that certain derivatives are securities," and consequently subject to the provisions of the 1934 law. To date, no derivatives case has resulted in a definitive court ruling on their legal nature. Most cases are either still undecided or have wound up in some form of out-of-court settlement. But as Mr Breeden strongly advises, "It would be a huge mistake to believe otherwise: The SEC has said these are securities, and until a court rules to the contrary, you could be taking your chances." (As for the culpability of corporate managers who either fail to hedge or who do so in an incompetent manner, that also remains to be legally determined.)

Regardless of the murky legal determination, recent "disasters" (such as the Orange County, California losses), recent settlements (such as the Gibson Greetings/Bankers Trust case) and related market forces are guiding the derivatives industry to work proactively with regulators to adopt its own "code of conduct". Clearly, these developments amount to at least a de facto acknowledgment by the industry that derivatives are akin to securities and should therefore be subject to more rigorous trading rules. Indeed, after so many highly publicised trading debacles, the industry needs to move in this area if only for purposes of public relations.

As much as the still evolving code attempts to provide protections, it

raises myriad new questions on liability. Perhaps the most important question is how far a marketer of derivatives must go in qualifying the needs and abilities of his customer? Dealers and end-users of derivatives alike will need to develop practical responses to such complex and highly inter-related issues as the following:

- * Suitability. With securities, dealers are required-unequivocally-to determine the suitability of a particular instrument relative to a customer's objectives. If derivatives are securities, "best efforts" to determine suitability will not provide an adequate defence, says Mr Breeden. "Depending upon who the parties to a transaction are, the transaction is either suitable or unsuitable. There is no middle ground." Consequently, dealer obligations in this area are, in a worst-case scenario for the industry, boundless.

Capability is a key facet of suitability. For a securities transaction, it is incumbent on the dealer to make certain the customer understands the product and has the tools needed to manage the position. Where knowledge is lacking, the bank or other dealer should either move on or try to better educate the client. But how far must a dealer go in terms of ascertaining a customer's capabilities? Are best efforts adequate? Moreover, what is a dealer to do when the customer is unco-operative? As Paul Atkins, executive partner of the International Financial Services Group at C&L L.L.P., explains, "Not all companies want to come out and tell you their capabilities. The more sophisticated counterparties don't want you to know how they evaluate prices; they don't want you to know their strategies; they just want to transact."

- * Disclosure. Recent cases have alleged that dealers did not disclose the true risks of various transactions. Going forward, banks will need to be very thorough in their disclosures, especially with customised products. But practically speaking, "How many pages of disclosure do you need?" asks Mr Breeden. "One sheet, a few pages, a whole book? What stress-testing-one basis point, 100 basis points, a thousand basis points?" In this vein, Mr Breeden advises firms to err on the side of caution: "At least with some customers, the less you say, the greater the dealer's risk of subsequent charges of inadequate or misleading disclosure." Above all else, says Mr Breeden, "you must never, ever lie to the customer. Be an open book, and everything you say must be totally, wholly, utterly truthful."

Determining suitability, capability and an appropriate level of disclosure simultaneously is a tall order. The endeavour is at once highly subjective and time consuming. Still, it is essential, and dealers are developing varied responses. For example, the managing director of a major US investment bank says that his group has created five categories of customers. For each grouping, the bank has defined a specific set of permissible transactions. While he would not reveal the specific groupings, he explains that the criteria include both objective and subjective assessments. Derivative bankers from JP Morgan have recently moved to improve disclosure and upgrade their clients' skills. The bank now routinely provides its clients with software and an extensive database of volatilities so that customers will be able to more easily value their positions.

However dealers respond, Mr Breeden recommends that to minimise potential problems policies should be implemented uniformly with all customers: "No matter who the end-user is on the other side of the transaction, they need to obtain the same level of disclosure." The ideal, Mr Breeden half muses, "would be to download to them a program that not only simulates anything from a 1-lm basis-point movement, but also forces them to sit and watch through five scenarios". Even with this ideal, however, there are still risks. For example, says Mr Breeden, "You'd still have to make sure no one forgets to send the program."

Better accounting

Markets require complete information to operate at their most efficient level. It is in this key area of disclosure that three critical initiatives are already under way:

(1) FAS No. 119. The first of these is the drive towards greater

disclosure. Users of derivatives have long resisted such "intrusions" for various reasons, including the need for competitive confidentiality. However, the Financial Accounting Standards Board (FASB) recently issued its new standard No. 119, which mandates a higher level of disclosure virtually across the board. In particular, the standard encourages companies to provide a detailed qualitative description of their derivative policies, strategies and controls. The majority of major companies contacted by the EIU say they will be offering this information in their 1994 annual reports.

Although FAS No. 119 is a substantial improvement, the SEC is still not happy with the new standard. According to Mr Breeden, the rules have still left too many categories of instruments outside of the disclosure net for regulators to be comfortable. For example, certain hybrid securities are exempt from the rule, a condition that could be deadly for an investor. "You might have a security that when you look at it says, 'I'm a harmless CD certificate of deposit'," says Mr Breeden. "But when you read it, it looks more like a potential serious loss of principal. The problem with FAS No. 119 is that it still exempts the things that most investors want to know most."

(2) The exposure draft on hedge accounting. The FASB is also pushing forward with its plans to standardise the rules for obtaining hedge accounting. Hedge accounting is the ability to offset the gains or losses of a derivative contract with the gains or losses on an underlying "hedged" item, thereby reducing earnings volatility. The rules are currently quite fragmented, but at their October 26, 1994 meeting, the group decided to adopt a relatively simple set of standards that will require a derivatives user who is involved in hedging to be able to obtain hedge accounting in the majority of situations. The trade-off is that all derivatives will now go "on-balance sheet". This latter change is a dramatic departure for a set of instruments that have long enjoyed the status of being "off-balance-sheet" items.

The FASB will issue an exposure draft on these new rules in the first quarter of 1995. Users will then be able to comment and influence the process before final regulations are drafted some time during the summer of 1995 and the new standard emerges in the autumn. (For more on accounting, see Chapter 2.)

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Country: WORLD

Industry: DEMOGRAPHICS AND LIFESTYLE, ECONOMIC OUTLOOK

Company Names (DIALOG Generated): C & L L L P ; Gibson Greetings/Bankers
Trust ; International Financial Services ; Securities Exchange

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4/9/4 (Item 1 from file: 267)
DIALOG(R) File 267: Finance & Banking Newsletters
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Colofon: The Mark of a Successful Buyout

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European Venture Capital Journal

April 1, 1997 DOCUMENT TYPE: NEWSLETTER

PUBLISHER: SECURITIES DATA PUBLISHING

LANGUAGE: ENGLISH

WORD COUNT: 5004

RECORD TYPE: FULLTEXT.

TEXT:

Advent International's track record of bringing portfolio companies to the public markets was highlighted earlier this year when a report from VentureOne Corp, placed it at the head of the IPO rankings for the private equity industry worldwide in 1996, with 24 of its investees achieving flotations. But trade sales remain the mainstay of the European exit market, and earlier this year, Advent International also scored a notable success on this front, with the sale of a 1995 Dutch buyout, Colofon, to Reed Elsevier. Although a trade sale was the expected exit route for this transaction, this disposal, which resulted in an IRR to the institutions well in excess of 100% per annum and made management 12 times their original investment, took place much earlier than backers or management originally envisaged.

A number of other features also make the story of this buyout from start to finish worthy of closer examination. The deal originated not for any strategic reason, but as a result of the sudden death of Colofon's founder. In addition, the price paid for the company, Dfl 97 million, was considerably higher than the Dfl 70 million price tag management and its advisors had originally expected. Furthermore, following the buyout, the group found itself unable to achieve one of its prime objectives. Finally, as John Singer of Advent International readily admits, the deal process itself "provides object lessons in how not to negotiate a buyout".

Nevertheless, Colofon was a highly satisfactory deal for management, backers and its ultimate purchaser, and as such also provides object lessons on how to add value while meeting management expectations. And, as a deal led by an Anglo-Saxon investor in the Dutch market, it also provides an example of how to maintain a good reputation for venture capital even in the context of a relatively rapid exit. Lastly, the successful outcome shows that Anglo-Saxon style buyouts can be executed successfully in Continental Europe.

The Company

Colofon was created in the mid-80s by Gerlof de Jager, the son of a printer, who acquired a series of old-established family run Dutch printing businesses. The three main acquisitions made by de Jager were Delwel, which was 100 years old, 75-year-old Vuga, and De Tijdstroom. De Jager himself was not directly involved in the day-to-day operation of Colofon, instead delegating operational responsibility to Arre Fockema-Andreae, managing director of Vuga, the first large acquisiti, on who built up a strong management team as the Colofon group expanded.

Colofon was therefore effectively a new holding company for old-established publishing names, and the company pursued an acquisition strategy of buying titles or creating joint ventures within these houses. Unlike other major Dutch publishing groups such as its eventual acquirer, Reed Elsevier, or Wolters Kluwer, Colofon housed its acquired titles and joint ventures within satellite companies, which retained a high degree of autonomy at board level, rather than incorporating them at group level. This strategy was attractive to potential targets and made their integration smoother, since personnel coming into Colofon felt they were joining another family company rather than an anonymous group. John Singer cites this as one of the keys to Colofon's success, since it enabled the company to combine the strengths of a large group with the benefits of

small independent operating units.

As it pursued its expansion strategy, Colofon grew strongly in terms both of sales and EBIT, achieving pretax profits of Dfl 11.75 million on sales of Dfl 55.8 million in 1993/4.

Tragedy Strikes

As previously mentioned, Gerlof de Jager did not play an active role in the day-to-day management of the Colofon businesses; he had also recently moved to Belgium as a tax exile. However, it was his practice to drop in once a week or so for a discussion with Arre Fockema-Andreae and the rest of the management team, which he usually followed up with a round of golf. This was a routine which he followed for the last time in May 1994 when, tragically, the 46-year-old entrepreneur collapsed and died mid-game.

As a result, Colofon was put up for sale by the trust department of MeesPierson, the administrators of the de Jager estate: ironically de Jager's decision to move to Belgium proved to have been a catastrophic mistake for his heirs: since he had not survived for four years after the move, the estate was liable to CGT tax at 80%.

Since the individual within MeesPierson's trust department dealing with the de Jager estate had never handled a company disposal before, responsibility for the sale was passed on to the bank's corporate finance arm. And, at this stage, June 1994, two parallel auction processes were initiated. Firstly, MeesPierson was seeking a buyer for Colofon. Secondly, management, anxious for Colofon to retain its status as an independent company, was seeking a backer for its own bid for the business.

Management chose Guus Landheer of KPMG, a man of tenacity and energy, as its advisor. His first move was to write to forty-five domestic and foreign venture firms, including Advent International. John Singer began to work on a deal proposal, believing, as he was told, that Advent International was one of a small, handpicked group; he says he is now happy he did not know at the time that so many other firms had been approached. KPMG's scattergun tactics are easier to understand in the light of the fact that the Colofon bid was the first buyout this particular team had handled—a factor which was to have a considerable influence on the negotiation process.

However, believing itself to be one of a small and select group of suitable backers selected by KPMG, Advent International submitted a proposal and was one of the groups chosen to meet with management.

Advent International offered several advantages as a backer: since at this stage management did not know how high bidding for Colofon was likely to go, they needed an advisor with deep pockets: this ruled out most local capital sources, since the Netherlands' domestic venture capital market was well adapted to medium-sized buyouts and expansion capital fundings—and, of course, early-stage deals—but less geared towards larger buyouts, which have tended to be the province primarily of international private equity groups.

A further advantage was that John Singer and Geoffrey Shopland, the executives working on the proposal, had both spent time running publishing businesses and therefore had a good understanding of a group such as Colofon which, while very commercial on one side still retained a strong family-owned, even idiosyncratic, culture within its individual operating units.

These two factors, John Singer believes, were instrumental in the Colofon management team's eventual choice of Advent International as backer.

Advent International's practice, when working on a transaction in a country where it has no local office, is to bring a local partner on board: in this instance, PARNIB, the private equity arm owned by, but independent of, De Nationale Investeringsbank, was chosen, a partnership which, happily, turned out to be "a meeting of minds" according to Advent International. The selection was also strongly championed by KPMG, who were very keen to work with PARNIB, given the group's connections and strong position in its domestic market.

Anatomy of a Publisher

At this stage of its development, Colofon consisted of four main businesses addressing discrete niche markets, as follows.

Vuga, which had 45 staff, generated around 36% of sales. It concentrated

on publishing for government and public bodies, local administrators, police, legal interpreters and other groups needing to keep abreast of new legislation. Vuga produced some 75 loose-leaf titles, together with magazines and books aimed at a similar audience.

Delwel was of a similar size to Vuga, employing 44 staff and publishing titles responsible for 36% of turnover. Delwel's speciality is information for business professionals and owners; instead of targeting particular industry sectors, Delwel developed products which cut horizontally through the business world, aimed at individuals within particular roles, such as owners, finance directors or sales managers. Information for officers responsible for worker council relations-an important factor in the Dutch market-formed a substantial part of its business. Loose-leaf products for professional development formed the core of Delwel's business, but it also published magazine and book titles for a similar audience.

Delwel was also the home for Colofon's new media interests. At the time of the buyout, John Singer explains, the Dutch market had not shown many indications of being prepared for new media publishing, and Colofon was content to wait for a lead from the market rather than working to create a demand: its principal products in this area were directories of companies in the Netherlands and one of board members which enabled the user to trace relationships between businesses.

De Tijdstroom's product range centred on information products for the welfare, health-care and nursing markets. The De Tijdstroom product range incorporated a higher proportion of sector-focused glossies as well as loose-leaf professional information products and an extensive booklist. This unit, which employed 33 staff, accounted for 18% of turnover.

The fourth Colofon satellite, Lemma, employed 14 staff, publishing books for intermediate and higher vocational education. Its extensive list of some 500 book titles accounted for only 8% of group sales.

In addition to these operating businesses, Colofon also owned in-house printing facilities and its own distribution and loose-leaf fulfilment side.

Just over 50% of group sales came from loose-leaf professional information products, another key factor in Colofon's success because of the low attrition rates associated with such professional information sources. Bound books accounted for 21% of turnover at purchase, magazines 24%, new media products such as on-line and CD-ROM publishing 2%, and other miscellaneous loose-leaf titles for the remaining 2%.

Virtually all Colofon's turnover was generated within its domestic market: the problem of international expansion for a professional information publisher is that a whole new structure is required for each foreign market since little material is internationally relevant. However, by this stage of its development, Colofon was targeting Belgium as a potential growth area, and had set up a team to develop this side of the business. Once again, an untimely death was to cause Colofon to take a change of direction: Patrick Stoffels, the head of the Belgian team, died shortly after the buyout and the Belgian development plans were shelved. This small segment of the business was acquired by its remaining management team a few months after completion of the main Colofon deal.

Assessment of the Opportunity

Colofon as a group had an 8% share of the domestic professional information market and a 5% share of the intermediate and higher vocational education publishing market. At the time of the buyout, the professional information publishing market was projected to continue to grow at between 6% and 10% per annum in the coming years, while the academic publishing market was likely to remain relatively static.

Reed Elsevier, VNU and Wolters Kluwer, Colofon's three principal competitors, together had a 60% share of the overall Dutch publishing market. Colofon, however, was the largest independent and unlisted market player, occupying a position in the top three, and often in first place, in most of its market niches, and benefiting from old brand names and strong author and user loyalty.

So, Colofon, in the position it had arrived at, was clearly an attractive proposition. What was less clear was where the group ought to go next, and how much longer it could expect to maintain its growth rate.

Colofon had increased its EBIT margin from 12% to 19% the preceding five years. The question facing both industrial and financial buyers was whether it would be able to sustain this growth. Advent International's analysis of performance showed that one third of the increase in sales had come from acquisitions, but two thirds was due to organic growth.

For a financial buyer, a clear exit route is a prerequisite. During the negotiation of the buyout, as is Advent International's normal process, there was protracted discussion with management about exit possibilities, covering a wide range of scenarios.

Flotation was in management's mind as a desirable option but Advent International emphasised that this was an unlikely option for a company of Colofon's size, given its almost exclusive focus on the Netherlands and the demise of the Dutch parallel market: after discussions, management shared the investors' understanding that a flotation was not likely to maximise the company's value. However, the backers were certain that Colofon, which intended to continue its expansion through acquisition, as well as through organic growth, would be a very attractive acquisition target for either domestic or international trade bidders in a few years' time, particularly if the company succeeded in further enhancing its margins in the wake of the buyout. John Singer's original expectation was that Colofon would be a three-to-four-year hold.

Negotiations Begin

By late August or early September 1994, MeesPierson, with input from KPMG, had put together a book showing Colofon's performance up to June 1994: this presented a company which had grown its sales by 21% per annum and EBIT by 31% per annum over the previous five years.

From the outset, management and its backers were aware that they would face stiff competition from trade bidders. The industrial buyers lined up to bid for Colofon included "all the usual suspects" for the Dutch publishing market: Reed Elsevier, VNU, PCM and Wolters Kluwer, together with other international groups.

So far, this was a pretty typical scenario for this type of company sale. In the event, there were several peculiarities about the negotiation process for this deal which are of interest.

Since, in the case of a niche publishing business such as Colofon, retaining an experienced management team was seen as crucial to a successful outcome, MeesPierson had agreed to limit the auction to a list of six acceptable bidders drawn up with management before the sale process was instigated.

Though the Netherlands in the mid 1990s was one of the more mature private equity markets in Continental Europe, it was still not unusual for the intermediaries to try to conduct the whole negotiation on behalf of management and the financial buyer—an approach which an Anglo-Saxon investor, and most vendors, are likely to find frustrating, to say the least. In this instance, the advisors to the management team did indeed try to handle the deal directly with the vendor—partly as a matter of expediency since John Singer was conveniently confined to a hospital bed with a ruptured disk for three weeks, and partly through preference.

However, the vendor also became less and less comfortable with this arrangement, since the MeesPierson personnel handling the sale preferred to deal with principals.

This in itself did not make for smooth progress for the MBO bid. The difficulties were compounded by the fact that this was the first MBO not only for the KPMG team but for the management's legal advisors. Through inexperience, both sets of advisors got hung up on certain non-central issues and at times adopted a perhaps inappropriately aggressive stance in dealings with the vendor. Misunderstandings proliferated.

Considerable frustration therefore built up and in December 1995 the Advent International backed MBO came close to finding itself out of the running.

Impatient by now with the slow rate of progress, MeesPierson had begun to press the management team to accept a bidder which was not on the original list of acceptable buyers, but who was offering 25% over the eventual price paid for the business. Here, KPMG more than justified its selection by convincing MeesPierson of "one hundred and one reasons" why this sale would

be a bad thing for the company, which was why this bidder had not appeared on the original list. As a result, this proposal was vetoed at an early stage.

Next, MeesPierson tried to promote another external offer, claiming that the bidder was offering more than the MBO price, which by this time was fixed in the region of Dfl 100 million. Management was told that this bidder would like to meet them and was planning to allow them to obtain an equity stake in the business.

However, during the first meeting, the new bidder's lawyer made the fatal error of leaving his file open at the copy of his client's offer. Nico van't Zet, head of Delwel, shares with John Singer the ability to read text upside down, and noted that the figure being offered was in fact lower than the management bid. Shortly afterwards, the meeting terminated, as Singer notes, "in disarray".

There was now a change in the MeesPierson team handling the sale, with overall responsibility passing to Bob Elfring. By this time a journalist at Het Financieele Dagblad had picked up on the Colofon story and was taking a stance supporting the management bid and questioning whether MeesPierson was mishandling the sale process. The embarrassment this caused to MeesPierson may have strengthened management's negotiating position at this stage, although Advent International concedes that the unnecessarily aggressive approach adopted by management's advisors was still a major delaying factor.

John Singer was mobile again by this stage and re-entered the negotiations; good relationships he had established with MeesPierson, and in particular with Bob Elfring, in the past now paid dividends, and vendor, management and backers came to the conclusion that things would proceed more smoothly if they negotiated directly rather than through intermediaries.

Following this tactical rethink, all outstanding points on the deal were agreed relatively quickly within two weeks in January 1995: although management was not offering the highest price, the MBO consortium were able to offer the vendor an attractive package since they were prepared to accept very low reps and warranties. Heads of agreement were signed at the end of January 1995, with MeesPierson imposing a 25 April deadline; if management did not meet this, Colofon would be sold to an industrial buyer the next day. Similarly, any alteration to the agreed terms would also result in immediate sale to the trade bidder.

At the price of three consecutive sleepless nights for the principals and their advisors, the 25 April deadline was met, and management, Advent International and PARNIB acquired Colofon for Dfl 97 million.

In contrast with the negotiation process, the deal's structure was relatively straightforward (see Table 2). Perhaps one of the most difficult aspects was structuring the ratchet on management's initial 7.5% holding in a way which would not incur immediate income tax liabilities, a perennial problem for buyouts in the Netherlands.

The company needed Dfl 10 million long-term debt and Dfl 35 million of medium-term money. Over and above this, an additional revolver was arranged in case of problems with repayment of the vendor loan note if Colofon had used all its cash for investment in acquisitions. In the end, because of the early sale to Reed Elsevier, this was never touched: Colofon was throwing off sufficient cash to finance its post-buyout acquisitions and internal investment programme.

Post Buyout Strategy

Colofon's new owners planned to go for growth while strengthening the factors which had contributed to the company's success to date, widening EBIT margins and maintaining the operating divisions as independent satellites.

A continuing policy of acquisitions was mapped out. Prior to the MBO, Advent International and Colofon had identified another independent Dutch publishing group, Vermande, as a highly complementary business which would have added between a third and a half to Colofon's sales: this seemed to make a lot of sense as an acquisition target. Approaches were made to the family owned company, but initially the owners were unwilling to sell. As a family company, there was, John Singer says, "a great deal of emotional

baggage involved", and it turned out that Vermande was not allowed to do a reverse takeover of Colofon at the time of the buyout.

Vermande's owners later arrived at the same conclusion which had led Colofon to identify the company as a potential target in the first place—that it was not viable alone—and, some 18 months after the Colofon buyout, decided to sell out instead to one of the Dutch majors, SDU.

However, Colofon's continuing acquisition policy within the three main professional publishing businesses, Delwel, Vuga and De Tijdstroom, added both further individual titles and larger product groupings, resulting in significant enhancement both of turnover and profit margins. Organic growth was also encouraged through investment in a substantial new marketing programme.

To maintain the momentum of growth at EBIT level, Colofon undertook further rationalisation of group overheads. Lemma, centred on an academic booklist, was the one Colofon division which never met its budget, whereas the other three consistently exceeded theirs; Lemma was also in the least attractive of Colofon's market sectors, vulnerable to seasonal change and varying trends in the academic world. The new owners transferred relevant titles from Lemma to the three other divisions. Thereafter, just over a year after the Colofon buyout, Lemma's management was permitted to undertake a buyout of the 15% of the list which remained. Colofon was thus transformed into a three-division group with enhanced profitability. Elsewhere, personnel and other costs were held constant or reduced, allowing growth in Colofon's gross margin to fall straight to the bottom line.

The Belgian expansion strategy had effectively been abandoned prior to the buyout; following the death of the manager who had spearheaded this initiative, and the group's Belgian interests were sold to the two remaining members of the divisional management team.

Although it still did not intend to try "forcing the market", Colofon was also seeking to expand the contribution of the new media division to group sales. In order not to be caught out by wider domestic adoption of on-line and CD-Rom products, Colofon continued to prepare databases which could be used to form the basis on on-line services in various divisions. Since Arre Fockema-Andreae had assumed the role of overall managing director of the buyout group, a new Vuga managing director, Jan Willem van der Weele, was appointed, who also had considerable experience of new media investment; he helped implement the database preparation programme, while Delwel successfully doubled the size of Colofon's new media side during the life of the buyout.

These strategies, together with intensive input from the venture backers, added considerable value to the company. Sales increased substantially, both through acquisitions and organically, as did the EBIT margin. In the year to June 96, Colofon had increased its sales to over Dfl 70 million per annum and had greatly increased its EBIT margin since the buyout.

A Change of Plan

Colofon could have carried on growing for several more years without loss of steam. However, when it became apparent that Vermande's owners were going to choose a different route, Advent International and the buyout team were driven to reassess their future goals.

The loss of the Vermande plum was, John Singer says, a major factor in Advent International's thinking on Colofon's eventual sale, since it marked the disappearance of the last "chunky" independent Dutch publisher which could have fitted comfortably into the existing Colofon group: had it come off, the acquisition would have enabled Colofon to strengthen presence in some existing niches and to enter others as a dominant player.

At this point, the publishing industry in the Netherlands was passing through a phase of extensive consolidation, and rivalry between the main domestic publishing groups was intense. At the same time, high stock exchange multiples and substantial cash war chests made appetites for buying very healthy.

Against this background, it became clear to Colofon's owners that they might be able to meet the financial objectives of both investors and management by seeking an early sale. A move into larger group ownership at this time was also judged likely to be beneficial for the company, which

had identified a need for substantial investment in new media, and acquisition by a larger group would enable Colofon to leverage off a new owners' existing infrastructure rather than duplicating it on its own account.

Therefore, under the terms of "the second treaty of Utrecht"- the agreements arising from the extensive exploration of potential exit scenarios which had been undertaken by management and investors during the buyout negotiations in the last week of January 1995-it was decided that a trade sale in an environment of healthy competition between publishing groups was an option it would be wise to pursue.

The Second Colofon Sale

Accordingly, Hambros were appointed to advise the company on a sale, and the sale process was instituted in November 1996.

Both domestic and international purchasers were approached: given the changes going on in the Dutch publishing industry at that time, it is not surprising that the highest bids came from domestic groups. Among these, Reed Elsevier, one of the original bidders for Colofon in 1995, emerged as the preferred bidder, although the competition had arrived at similar valuations.

Colofon was a logical acquisition for Reed at this stage. The group was known to have ambitions to expand its interests in the legal publishing sector, so Vuga was an attractive proposition, while Delwel was strongly complementary to Reed's own business in the business publishing area, and the De Tijdstroom titles would fit comfortably into Reed's own strong healthcare division.

Before Reed was allowed to instigate due diligence, the Colofon board insisted the would-be bidder would meet with management and agree on the modus operandi that would be put in place after the sale. Such a move, though unusual, is more likely to be accepted in the Dutch market than elsewhere since transactions must be referred to workers councils.

Reed readily agreed and complied with all management's conditions: there were to be no redundancies as a direct result of the acquisition, and roles would be agreed for each member of the management team; Colofon would also be allowed to operate as it had done previously, maintaining the independent status of the businesses within the group. Management, which had clearly been anxious to retain Colofon's independent status at the time of the buyout, have all stayed with the company, with some ending up running the new combined divisions within Reed.

According to John Singer, what any acquirer might have found hardest to swallow during negotiations was the fact that it had had the opportunity to acquire Colofon for less than half the current asking price two years previously. However, Reed's own multiples are high, and the acquisition of Colofon has immediately enhanced, rather than diluted, its earnings per share.

The price Reed Elsevier paid for Colofon has not been disclosed but is widely believed to have been comfortably over the Dfl 200 million mark "While the company's operating profits were extremely good and continuing to grow, Reed didn't pay a stupid multiple", says John Singer. Reed was reportedly happy with the asking price, which was reinforced by other bidders at similar levels.

The Happy Ending

Despite its inauspicious start and some unexpected developments, the buyout of Colofon was successful by any standards: the institutional investors multiplied their money four-fold, while management, whose ratchet operated to its fullest extent, received 12 times their original investment.

The sale price obtained for the company reflected the acceleration in profitability achieved following the buyout, a key feature of the original business plan. John Singer comments: "We don't believe in relying on buying companies cheaply at Advent International, so we work on the premise that we will have to double profits to achieve our desired returns; as a group, we are also not prepared to risk relying on higher exit than entry PEs".

Although if Colofon's sale had been deferred for another couple of years, the investors could perhaps have made a multiple of six or seven (though not necessarily a higher IRR), John Singer has no doubt that the decision

to move under the umbrella of a larger corporate at this stage was the right one for the company. Shifting into nautical metaphor, he says that, by that point, management and investors had finished off the work begun by Gerlof de Jager and Colofon was steered into a safe harbour by its original crew-albeit under a different captain.

Clearly, a second sale was only likely to have a successful outcome if it was on terms acceptable to Colofon's management: John Singer admits that the backers took a considerable risk by imposing the pre-sale conditions on Reed, but stresses that this was of the utmost importance to both board and investors.

Because of the undertakings Reed was prepared to enter into, Advent International was confident that a sale to Reed was the right thing for the company, as well as its backers. This is in keeping with Advent International's philosophy, which John Singer says centres on the belief that "We have major responsibilities are to the workforce, management and company; Our approach to taking profits has to be seen against that background".

Because of this approach, the Colofon buyout was also successful in conveying to the Dutch market that, despite the quick second sale, Advent International is not a stereotypical Anglo-Saxon investor, buying and selling businesses and looking for a quick buck. Articles in the local press were, without exception favourable, and all acknowledged the contribution that Advent International and PARNIB had made to the growth of Colofon by implementing an acquisition strategy and taking no cash out during the lifetime of the buyout.

Not least of the lessons to be learned from Colofon is the importance of access to the vendor during sale negotiations. Looking back on the original auction process, John Singer sums up: "It was a nightmare, but at least it proves Advent International does work hard for deals; and we were always confident that Colofon was one worth fighting for".

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Table 2 Structure of the Colofon Buyout
EQUITY

(c) SECURITIES DATA PUBLISHING All Rts. Reserv.

COMPANY NAMES (DIALOG GENERATED): Advent International ; Colofon ; De
Nationale Investeringsbank ; Delwel ; IPO ; Lemma ; MBO ; PARNIB ; Reed
Elsevier ; VentureOne Corp ; Vuga
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